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ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR 1997

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BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

JOHN T. MYERS, Indiana, *Chairman*

HAROLD ROGERS, Kentucky
JOE KNOLLENBERG, Michigan
FRANK RIGGS, California
RODNEY P. FRELINGHUYSEN, New Jersey
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NOTE: Under Committee Rules, Mr. Livingston, as Chairman of the Full Committee, and Mr. Obey, as Ranking Minority Member of the Full Committee, are authorized to sit as Members of all Subcommittees.

JAMES D. OGSBURY, BOB SCHMIDT, JEANNE WILSON, and DONALD M. MCKINNON,
Staff Assistants

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Interstate Commission on the Potomac River Basin 703
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ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR 1997

HEARINGS

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COMMITTEE ON APPROPRIATIONS

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ENERGY AND WATER DEVELOPMENT APPROPRIATIONS FOR 1997

WEDNESDAY, MARCH 27, 1996.

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

WITNESSES

HON. BRUCE BABBITT, SECRETARY, DEPARTMENT OF THE INTERIOR

PATRICIA J. BENEKE, ASSISTANT SECRETARY FOR WATER AND SCIENCE, DEPARTMENT OF THE INTERIOR

ELUID L. MARTINEZ, COMMISSIONER, BUREAU OF RECLAMATION

MARY ANN LAWLER, DIRECTOR, OFFICE OF BUDGET, DEPARTMENT OF THE INTERIOR

ROBERT WOLF, CHIEF, PROGRAM, BUDGET AND LIAISON, BUREAU OF RECLAMATION

REPRESENTATIVE JOHN T. MYERS' OPENING REMARKS

Mr. MYERS. The committee will come to order. This morning we are pleased to have the Secretary of the Interior, the Honorable Bruce Babbitt. Good to have you back with us again. You're a regular visitor here with us and we appreciate your testimony. You will be recognized now for your testimony. And welcome to your associates.

SECRETARY BABBITT'S OPENING REMARKS

Secretary BABBITT. Mr. Chairman, thank you very much. I was reflecting on the way over here that I first appeared before this committee in 1978 when I was in my first year as Governor of Arizona, and that's 18 years ago. As I recall at that time Mr. Bevill was the chairman and you were the ranking member, and here we are 18 years later and you're the chairman and Mr. Bevill is the ranking member. I must say that I speak for everyone in the Reclamation family in first thanking both of you for your extraordinary support, and understanding, and guidance, and counsel across the years, and expressing our regret that both of you are leaving in this same term. It's been a wonderful and productive relationship. We are grateful and somewhat saddened by the prospect of this being our last meeting together. Now, I must admit that there are some who have expressed some hope that this will be my last appearance before this committee as well, but——

Mr. MYERS. Well, if you'd like to come back again, we could always——

Secretary BABBITT. You haven't had enough, right? But thank you for that kind word.

Mr. BEVILL. Thank you, Mr. Secretary, our favorite cabinet member. We're always delighted to hear from you and thank you for your kind remarks. You've been great to work with and we expect you to be here another 4 years.

Secretary BABBITT. Well, Mr. Bevill, if there is one—with all due respect though——

Mr. BEVILL. I was talking about Olivia and I. We expect you to be here another 4 years.

INTRODUCTION OF NEW TEAM

Secretary BABBITT. Mr. Chairman, committee members, we have a new team with us today. This really is a remarkable time of transitions because I have with me today a new Assistant Secretary, Patty Beneke, who replaces Betsy Riecke and has been confirmed by the Senate. She was an obvious choice and an easy confirmation because she is a creature, if I may say so, of the United States Senate, and notwithstanding that apparent handicap was——

Mr. MYERS. Sorry about that.

Secretary BABBITT [continuing]. Notwithstanding the liabilities has been a really wonderful addition to our team. And I have with me for the first time the new Commissioner of Reclamation, Mr. Eluid Martinez, from New Mexico. Eluid is known throughout the West as really an icon of the water establishment. He was the New Mexico State Water Engineer, and as you well know, state water engineers rank high in the pantheon of Western politics, way above mere governors. It was with great pleasure and pride that I managed to obtain his services and his confirmation by the Senate.

I also want to acknowledge what you well know that the Department of the Interior right now is running without a fiscal year 1996 appropriation except for those areas under the jurisdiction of this committee. Again, it seems to me a testimonial to the relationship we have that your bill got worked out and done. As we dangle in the wind in every other area, everything seems to be right on track here and we're most grateful for that.

GLEN CANYON DAM CONTROLLED FLOOD

Before deferring to the people with the facts, I would like to say a word about the events yesterday at Glen Canyon Dam out in Arizona. I spent 2 days at Glen Canyon preparing for the controlled flood which was unleashed yesterday morning from the dam into the Grand Canyon. It was an extraordinary event, and I think a high testimony to the Bureau of Reclamation. Operation of the dam had become a tremendously contentious issue of river management dating back to the 1980's and involving many parties, an apparently intractable standoff between the basin power users, environmental groups, the National Park Service, Indian tribes, the basin states concerned about water allocations in addition to power revenues. It really looked like another train wreck was just coming straight on us. The Bureau of Reclamation took control of this process early on, got together a scientific task force that across the last 6 or 8 years has, under the guidance of a group known as the Glen Canyon Environmental Studies, laid out an approach which said, "If we get the scientists together and really work this problem hard, and look at all of the competing demands, we may be able to find a new way of running this system that will provide enough benefits that everybody can agree that consensus is possible."

That's exactly what happened yesterday morning. I'm used to an occasional disagreement when I go West and from time to time a little bit of contention and some high feelings. I'm going to tell you, I was absolutely astonished to stand on the rim of that canyon with state representatives, the Fish and Wildlife Service, the Park Service, the basin state water users, the power consumers, the Indian tribes, all of them there in agreement that we had found a way to manage that dam. I think the Bureau deserves credit for that. I might also add that I know we talk a lot in these hearings about the O&M issues, but standing at Glen Canyon Dam and looking at that incredible structure and the way it is operated, and touring down through the bowels of the dam—clean, sparkling, crisp—that place is being run like clockwork. It is really, to me, a stirring testimonial to the Bureau of Reclamation, to the relationship that we all have, and to the reality that government does do some things very well in partnership with a lot of good people for the benefit of the public, and it is in that spirit that I come here.

I would like now, as I promised you, to defer to Patty Beneke so we can get past the generalities to the facts.

[The prepared statement of Mr. Babbitt follows:]

STATEMENT OF BRUCE BABBITT
SECRETARY OF THE INTERIOR
BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

MARCH 27, 1996

I am pleased to appear before you today with Patricia Beneke, the Assistant Secretary for Water and Science, and Eluid Martinez, the Commissioner of the Bureau of Reclamation, in support of the President's FY 1997 budget for Reclamation and for implementation of the Central Utah Project Completion Act.

I appear before you at a most unusual moment in history. We are six months into FY 1996 and most of the Department of the Interior is still operating under a continuing resolution -- the eleventh this year. The uncertainty and confusion this situation has caused have put important programs and projects in jeopardy and impaired our ability to provide services to the public.

We in Interior, and particularly in Reclamation, are grateful that this Committee along with the Congress and the Administration were able to agree on the funding and provisions for programs under your jurisdiction fairly early in the fiscal year.

In order to set this year's request in context, let me first briefly review the President's FY 1997 budget for the entire Department, and then touch on highlights of the requests before you today for Reclamation and the CUP Completion Act.

HIGHLIGHTS OF THE DEPARTMENT'S FY 1997 BUDGET

The Department of the Interior's FY 1997 budget is about meeting commitments:

- To regional partnerships -- with State and local governments, community groups, the private sector, and other Federal agencies -- to restore America's natural and cultural heritage
- To enhance the Nation's parks, refuges, and public lands for the American people and future generations
- To Native Americans to meet our trust responsibilities and to advance Tribal self-determination and self-governance
- To a strong program of independent and rigorous science
- To the American people to use the funds they provide as efficiently and effectively as possible

To meet these commitments, the FY 1997 budget for the Department seeks a total of $7.33 billion in funds subject to annual appropriation by the Congress. This is an increase of $468 million, or 6.4 percent, over the expected FY 1996 level, but a decrease of $29 million from the amount provided in FY 1995. The request is part of the President's plan to achieve a balanced budget in seven years, and reflects his commitment to protect the National Parks and Refuges, other public lands, and sensitive ecosystems such as the Northwest forests and the Florida Everglades.

Major changes from the expected FY 1996 level include:

- An increase of $157.5 million is proposed in the Bureau of Indian Affairs budget for direct funding allocations to Tribes, in order to restore the funds needed for Tribal government operations and such basic services as law enforcement, welfare assistance, child protection and road maintenance. Tribes establish their own priorities for the use of these funds based on local conditions and unique needs. An additional $43.5 million is requested for BIA school operations in order to accommodate increasing enrollment and maintain academic standards.

- One of the most significant environmental initiatives of this Administration is the restoration of the Everglades and the South Florida ecosystem. The FY 1997 budget proposes an increase of $105.9 million to expand ongoing efforts to restore one of the world's unique environmental treasures. The increase includes $100.0 million in a new Everglades Restoration Fund for land acquisition and related activities, and additional funds for hydrologic and biologic research, resource management at parks and refuges, and construction of a water delivery system

- To provide the resources necessary to protect and preserve the Nation's parks for current and future generations of Americans, the FY 1997 budget for the National Park Service includes an increase of $48.9 million for park-level operations to maintain current levels of resource protection and visitor services and to address specific resource needs. In addition, increases totaling $15.5 million are requested for natural and cultural resource management and for maintenance programs.

- An increase of $18.3 million is requested to meet the Department's commitment to provide recreational opportunities and sustain the health, diversity, and productivity of 270 million acres of public lands administered by the Bureau of Land Management.

- The Fish and Wildlife Service budget requests an increase of $14.4 million to ensure that the highest priority units of the National Wildlife Refuge System are adequately maintained and to revitalize native fish stocks of recreational importance.

- The FY 1997 request for the Endangered Species program is $83.1 million, an increase of $34.0 million over FY 1996. This Administration has demonstrated that the Endangered Species Act is a strong, effective conservation tool that works, but adequate funding is needed for a responsible, credible program.

- Increases totaling $23.9 million are requested for continued implementation of the Northwest Forest Plan; priority is placed on filling the pipeline of timber sales under the rigorous environmental safeguards of the Forest Plan and on the Jobs in the Woods program.

- An additional $13.9 million is requested for the U.S. Geological Survey to support a strong, independent program of scientific research to provide basic earth science and biological data for the Federal Government and the Nation.

- I have named and the Senate has confirmed a Special Trustee for American Indians who has been delegated responsibility for managing the financial assets held in trust by the United States. An increase of $20.0 million is requested to begin implementation of efforts to bring trust resource management up to industry standards, and to strengthen accounting systems and financial controls.

- Major decreases from the FY 1996 level include: -$62.0 million as a result of the legislated elimination of the U.S. Bureau of Mines; and -$8.8 million for the Bureau of Land Management's Automated Land and Mineral Records System.

Over the last three years, the Department has worked aggressively to streamline and re-engineer our programs, and improve service to our customers. Interior bureaus are changing the way they do business, providing better service in less time. The Department's employment level is almost 8,000 FTE below FY 1993, a reduction of 10 percent. Within this reduced level, bureaus are making substantial efforts to reduce staff in headquarters and regional offices, and to put more people in the field. With our streamlining process largely complete, Interior has the right people in the right places to get the job done.

FY 1997 BUREAU OF RECLAMATION BUDGET

The President's FY 1997 budget for the Bureau of Reclamation includes a request for $796.5 million in current budget authority. This request is offset by discretionary receipts, resulting in net discretionary budget authority of $765.2 million, an increase of $7.1 million over FY 1996.

The FY 1997 budget reflects BOR's evolving role in water resources management. As some major projects have moved close to completion, funding requests for traditional construction projects have declined. Reclamation plans to meet the challenge of continuing Federal funding constraints through partnerships with other Federal and non-Federal entities, and by promoting cooperative, effective stewardship of the West's water and associated natural resources. The budget includes funds to implement partnerships and other efforts that promote water conservation, wastewater reclamation/reuse, and environmental restoration.

One of Reclamation's highest priorities continues to be providing adequate funding for operation, maintenance and rehabilitation of its existing facilities. The FY 1997 request for the **Operation and Maintenance Program** is $292.9 million, an increase of $19.8 million over the FY 1996 level. Ensuring the reliability of Reclamation's facilities is essential to providing water and power to its customers and revenue to the Federal Treasury. Reclamation is working closely with water users and other stakeholders to ensure that available resources are used effectively. In addition, Reclamation is identifying and implementing measures designed to maintain the level and quality of services, but at a lower unit cost.

The FY 1997 request for the **Construction Program** is $392.5 million, a decrease of $18.5 million below FY 1996. The FY 1997 request provides funds to move several large projects towards completion and to undertake substantial dam safety work. In addition, the budget includes $32.2 million for continued Federal cost-sharing in four water reclamation/reuse projects in California. Funds are also requested for several environmental restoration projects, including $15.0 million for Columbia/ Snake River Salmon Recovery projects and $14.5 million for Endangered Species Recovery projects in other river basins.

Reclamation's FY 1997 budget includes a request for $38.1 million from the **Central Valley Project Restoration Fund**, which will be used for a wide variety of fish and wildlife restoration activities, including acquisition of water for wildlife refuges and other purposes, and continuing work on the Shasta Dam Temperature Control Device. The request is financed in part by a proposal to collect an estimated $31.3 million in additional mitigation and restoration charges, the maximum available under the Central Valley Project Improvement Act.

The request for **General Investigations** ($15.1 million, $2.4 million over FY 1996) funds 52 planning studies, including eighteen new studies that reflect Reclamation's emphasis on water resources management and conservation. The request for the **Loan Program** ($12.7 million, $1.0 million over FY 1996) funds seven ongoing loans -- five in California, one in Arizona, and one in Oregon. The request for **General Administrative Expenses**, the appropriation that finances Reclamation's central management functions, is $49.0 million, $0.8 million over FY 1996.

FY 1997 CENTRAL UTAH PROJECT BUDGET

The Central Utah Project Completion Act provides for completion of the Central Utah Project (CUP) by the Central Utah Water Conservancy District; establishes the Utah Reclamation Mitigation and Conservation Commission; and provides for the Ute Indian Rights Settlement. As the Completion Act provides that the Secretary may not delegate his responsibilities under the Act to Reclamation, this request is presented separately.

The FY 1997 budget provides $43.6 million for use by the District, the Commission and the Department to implement Titles II - IV of the Act, a decrease of $0.5 million from FY 1996. Assistant Secretary Beneke has prepared a statement on our FY 1997 request. Let me just say that we are pleased with progress to date in implementing the Completion Act, and believe that we are on track in meeting the Act's goals -- to complete the CUP in a timely and environmentally sound manner, while resolving related water rights claims of the Ute Indian Tribe.

* * * * *

In conclusion, I believe we have submitted a good budget that reflects the need to streamline and make Government more efficient, while still meeting the varied, national responsibilities of the Department of the Interior. I look forward to working with you to meet these responsibilities.

This concludes my prepared statement. I will be pleased to answer any questions.

Mr. MYERS. Well, thank you. Your prepared statement will be placed in the record and you may proceed as you like.

ASSISTANT SECRETARY BENEKE'S OPENING REMARKS

Ms. BENEKE. Thank you very much, Mr. Chairman. I will be very brief this morning. I have a statement on the budget for activities to carry out the Central Utah Project Completion Act, which I would appreciate being placed in the record. That program, of course, reports directly to my office. In addition to that, I wanted to be here this morning to respond to any questions that you might have about that program or any other budget matter related to the Bureau of Reclamation. Mr. Martinez will continue with a more detailed statement about the Bureau's budget. Thank you, it's a real privilege to be here.

[The prepared statement of Ms. Beneke and the Central Utah Project justification material follow:]

STATEMENT OF PATRICIA J. BENEKE

ASSISTANT SECRETARY FOR WATER AND SCIENCE
DEPARTMENT OF THE INTERIOR
BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE
ON ENERGY AND WATER DEVELOPMENT
MARCH 27, 1996

My name is Patricia J. Beneke. I serve as the Assistant Secretary for Water and Science in the Department of the Interior. I am pleased to provide the following information on the President's FY 1997 budget for implementation of the Central Utah Project Completion Act.

The Central Utah Project Completion Act, Titles II - VI of P.L. 102-575, provides for completion of the Central Utah Project (CUP) by the Central Utah Water Conservancy District. The Act also authorizes funding for fish, wildlife, and recreation mitigation and conservation; establishes the Utah Reclamation Mitigation and Conservation Commission to coordinate mitigation and conservation activities; and provides for the Ute Indian Water Rights Settlement.

The Act provides that the Secretary may not delegate his responsibilities under the Act to the Bureau of Reclamation. As a result, the Department has established a program coordination office in Provo, Utah, with a Program Director to provide oversight, review and liaison with the District, the Commission, and the Ute Indian Tribe, and to assist in administering the responsibilities of the Secretary under the Act. The Program Director, Ron Johnston, reports to me and is here today to help respond to your questions.

The FY 1997 request for the Central Utah Project Completion Account is $43.6 million which is a decrease of $0.5 million from FY 1996. The request includes $25.5 million for the District to continue construction of the Diamond Fork System; continue planning studies on the Spanish Fork Canyon/Nephi Irrigation System and on replacement facilities for the Uintah and Upalco Units; to continue the implementation of water conservation projects and groundwater recharge and conjunctive use programs; and to initiate work on the Duchesne/Strawberry diversion structures.

The request also provides $11.7 million which would be transferred to the Commission for mitigation and conservation projects authorized in Title III of the Act, and for completing other mitigation measures identified in Reclamation planning documents. This amount is a decrease from the FY 1996 amount of $18.5 million because we anticipate that there will be substantial carryover of prior year funds available. Prior to implementing conservation projects the Commission is required by Section 301(g) of the Act to develop a 5-year plan, which will not be completed until this May.

Finally, the request includes funds for the Federal contribution to the principal of th Utah Reclamation Mitigation and Conservation Account ($5.0 million); for mitigation and conservation projects outside the State of Utah ($0.3 million); and for program administration ($1.1 million).

In addition to the request described above, the Bureau of Reclamation's budget includes $7.5 million to complete certain features of the CUP; $25.0 million is included in the Bureau of Indian Affairs budget for the Ute Indian Water Rights Settlement; and $5.4 million is included in the request for the Western Area Power Administration for its contribution to the Utah Reclamation Mitigation and Conservation Account.

This concludes my prepared statement. I have limited my remarks this morning to the Central Utah Project Completion Act since the Secretary and Commissioner are addressing the Reclamation budget request. However, I would be pleased to answer any questions which you might have for me on other issues.

PATRICIA J. BENEKE

Patricia J. Beneke was confirmed as Assistant Secretary for Water and Science, Department of the Interior, on December 22, 1995. Prior to this time she had served as Deputy Assistant Secretary for Water and Science from June 1995 through December 1995, and as Associate Solicitor for Energy and Resources from May 1993 to May 1995.

Ms. Beneke came to the Department of the Interior after serving as Senior Counsel to the Senate Committee on Energy and Natural Resources since January 1987. She was Minority Counsel from September 1985 to December 1986. From February 1983 to August 1985 she was a litigation associate at McDermott, Will & Emery; from 1981 to 1983 she was Trial Attorney for the Land and Natural Resources Division of the United States Department of Justice; and from 1979 to 1980 she served as an Attorney Advisor in the Office of the General Counsel of the U.S. Department of Agriculture. Her expertise includes natural resources law, public land law, and environmental law.

Ms. Beneke received her B.A. in 1976 from Iowa State University and her J.D. in 1979 from Harvard Law School. She is a member of the District of Columbia and Iowa Bars.

A native of Ames, Iowa, Ms. Beneke resides in McLean, Virginia, with her husband and their two children.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUDGET JUSTIFICATIONS, F.Y. 1997

CENTRAL UTAH PROJECT COMPLETION ACT

NOTICE: These budget justifications are prepared for the Energy and Water Development Appropriations Subcommittee. Approval for release of the justifications prior to their printing in the public record of the Subcommittee hearings may be obtained through the Office of Budget of the Department of the Interior

CENTRAL UTAH PROJECT COMPLETION ACT

General Statement

The Central Utah Project Completion Act (Titles II - VI of P.L. 102-575) provides for completion of the Central Utah Project (CUP) by the Central Utah Water Conservancy District (District). The Act also authorizes funding for fish, wildlife, and recreation mitigation and conservation; establishes an account in the Treasury for the deposit of these funds and other contributions; and establishes the Utah Reclamation Mitigation and Conservation Commission (Commission) to coordinate implementation of mitigation and conservation activities; and authorizes funding for the Ute Indian Water Rights Settlement.

The Fiscal Year 1997 request for funds for use by the District, the Commission, and the Secretary of the Interior to implement Titles II - IV of the Act are described in this document. The request for funds authorized in Title II to complete features being constructed by the Bureau of Reclamation is described in it's budget. Funds to implement Title V of the Act (the Ute Indian Water Rights Settlement) are included in the Bureau of Indian Affairs budget. Finally, the budget for the Western Area Power Administration (WAPA) contains a request for its contribution to the Utah Reclamation Mitigation and Conservation Account.

Central Utah Project Completion Account - The FY 1997 President's Budget for Titles II - IV of the Act is $43.6 million, a decrease of $0.5 million from the FY 1996 enacted level. Of this amount, $31.9 million will be expended from this account and $11.7 million will be transferred to the Utah Reclamation Mitigation and Conservation Account for use by the Commission.

The request includes $25.5 million for use by the District to:
- complete planning and NEPA documents and initiate design work, and acquisition of land, rights-of-way, and permits on the Spanish Fork Canyon/Nephi Irrigation System;
- complete a feasibility study for conjunctive use of surface and groundwater;
- continue construction of Diamond Fork pipeline;
- develop a financial plan for financing the local share of capital costs and repayment on the Uintah/Upalco Units; and
- continue construction on the Duchesne/Strawberry diversion structures;

The request also includes a total of $6.4 million for use by the Office of the Secretary:
- $5.0 million for the Federal contribution to the principal of the Utah Reclamation Mitigation and Conservation Account pursuant to Sec. 402(b)(2);
- $0.3 million for mitigation and conservation projects outside the State of Utah pursuant to Sec. 314(c); and
- $1.1 million for a staff to provide liaison with the District, the Commission, and the Ute Indian Tribe, and to otherwise assist in carrying out responsibilities of the Secretary under the Act.

Central Utah Project

The $11.7 million requested for transfer to the Utah Reclamation Mitigation and Conservation Account for use by the Commission includes:

- $9.7 million for fish, wildlife, recreation mitigation and conservation projects authorized in Title III; and
- $2.0 million authorized in Sec. 201(a)(1) for completing mitigation measures committed to in Bureau of Reclamation planning documents.

These requests are discussed in more detail on the following pages.

Utah Reclamation Mitigation and Conservation Account - In FY 1997, funds deposited in or transferred to this account are estimated to total $28.5 million, including the $11.7 million request described above. The remaining $16.8 million will be added to the principal of this account, which may not be expended. This includes the $5.0 million Federal contribution described above, a $3.0 million contribution from the State of Utah, and an estimated $2.5 million in interest. In addition, the Commission plans to exercise its authority under Sec. 402(c)(2) of the Act to add the contributions from the Western Area Power Administration ($5.4 million) and the District ($0.8 million) to the principal of the account. The Act provides that, once the Title III projects are completed, future interest on the accumulated principal will be available for the Commission's use. The estimated principal in the account at the end of FY 1997 is $60.8 million.

Summary by Account
FY 1995 - FY 1997 Budget Authority
(in thousands of dollars)

	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
Current Authority			
Central Utah Project Completion	$29,030	$25,636	$31,927
Utah Reclamation Mitigation/Conservation	11,133	18,503	11,700
Total current authority	$40,163	$44,139	$43,627
Permanent Authority			
Utah Reclamation Mitigation/Conservation	$1,029	0	0
Total Budget Authority	$41,192	$44,139	$43,627

CENTRAL UTAH PROJECT COMPLETION ACCOUNT

Location: This project is located Utah's Bonneville and Uinta Basins, in Uintah, Duchesne, Wasatch, Summit, Utah, Salt Lake, and Juab Counties.

Description: The Central Utah Project Completion Act (Act) provides for completion of the Central Utah Project by the Central Utah Water Conservancy District. This involves completion of the Bonneville Unit's Diamond Fork and Spanish Fork Canyon/Nephi Irrigation Systems, and construction of the Uinta Basin Replacement Project. Funding is also authorized for studies and programs to improve water management and conservation. In addition, the Act authorizes funding for fish, wildlife, and recreation mitigation and conservation activities and establishes the Utah Reclamation Mitigation and Conservation Commission to coordinate those activities.

Authorization: Public Law 102-575, October 30, 1992.

Related Authorizations: Public Law 84-485, April 11, 1956; Public Law 92-370, August 10, 1972; Public Law 94-423, September 28, 1976; and Public Law 100-563, October 31, 1988.

Land Certification: Land certifications for the Spanish Fork Canyon/Nephi Irrigation System, and for facilities that would replace the Uintah/Upalco Units, are not yet complete.

Definite Plan Reports/ Feasibility Reports The schedule for approval of planning documents is:
Diamond Fork - approved December 1994
Wasatch County Water Efficiency Project - September 1996
Spanish Fork Canyon/Nephi Irrig. System - August 1996
Uintah/Upalco Replacement Facilities - July 1996.

Benefit-Cost Ratios: As revised project cost allocations are not available, benefit/cost ratios cannot be calculated.

Completion Data: Work authorized by Public Law 102-575 is projected to be completed by September 2005.

Project Cost Allocation/ Project Repayment: Project cost allocations will be developed as planning activities are completed.

Status of Repayment Contract: Repayment will be covered by existing contracts with the Central Utah Water Conservancy District. Amendments, or supplemental repayment contracts, will be negotiated as necessary.

Other Information: Reports accompanying P.L. 102-575 state the authorizing committees expect the District will explore replacement features for the Uintah and Upalco Units which would be less costly, more feasible, and environmentally less damaging than features planned by the Bureau of Reclamation. Reports on potential replacement features are scheduled to be completed during FY 1996.

Millard County was excluded from the District and the CUP in 1994, precluding the delivery of CUP water to the Sevier River basin. As provided in section 202(a)(1)(B), the District is proceeding with plans for an alternate system to deliver irrigation water to lands in the Utah Lake drainage basin. As a result, the Irrigation and Drainage System has been renamed the Spanish Fork Canyon/Nephi Irrigation System.

Appropriation Ceiling: Appropriation ceilings remaining as of October 1996 are:

- Title II (§ 202 to 207) - $312,663,000
- Title II (§ 201(a)(1)) - $24,583,000
- Title III - $131,462,000

Work Proposed for FY 1997:

Central Utah Water Conservancy District:

Title II - Central Utah Project Construction

Spanish Fork Canyon/Nephi Irrigation System $ 2,600,000
Activities include completion of all planning and NEPA documents and initiation of design and specification processes. This includes contract document preparation and acquisition of land, rights-of-way, and permits.

Conjunctive Use of Surface and Ground Water $ 1,000,000
Activities include completion of the feasibility study by the Utah Division of Water Resources of systems to allow groundwater recharge and the conjunctive use of surface water and ground water resources in Salt Lake, Utah, Davis, Wasatch, and Weber Counties. FY 1997 activities also include implementation of groundwater recharge and conjunctive use programs.

Diamond Fork System $ 17,977,000
A contract for construction of the Lower Diamond Fork Pipeline was awarded in October 1996. Activities include construction and construction management services.

Uinta Basin Replacement Project $ 1,450,000
Planned activities include completion of planning and NEPA documents; initiation of

design and contract documents; acquisition of land, rights-of-way, and permits; public involvement; and project management activities.

Duchesne/Strawberry Diversion Structures $ 500,000
Planned activities include preparation of design and contract documents; acquisition of rights-of-way and permits; and initiation of construction.

Conservation Measures $ 2,000,000
Planned activities include completing required NEPA compliance activities for identified projects, construction activities, and project management/administration. FY 1997 funding is anticipated to be used for the Wasatch County Water Efficiency Project and the South Utah County Distribution System.

District Subtotal **$25,527,000**

Utah Reclamation Mitigation and Conservation Commission:

Title III - Fish, Wildlife, and Recreation Mitigation and Conservation
The Act established 43 mitigation and conservation projects within Title III. These projects have been organized into five areas:

Diamond Fork Fish and Wildlife $ 25,000
Activities in the Sixth-Water/Diamond Fork Corridor include rehabilitation and improvement of fish habitat, and of watersheds and riparian habitat.

Provo River/Utah Lake Fish and Wildlife $ 5,275,000
Activities in the Utah Lake area and the Provo River Corridor include fish and wildlife habitat improvement; enhancement of riparian habitat, wetlands, recreation, and public access; collection of engineering and environmental data for diversion dam rehabilitation; work on the Daniels Creek replacement pipeline; acquisition of Provo River water rights and angler access; and acquisition and development of the Utah Lake Wetland Preserve. Activities within the Jordan River Corridor include NEPA compliance, fishery improvements, rehabilitation of riparian habitats, protection of wetlands, and construction of recreation facilities.

Duchesne/Strawberry Rivers Fish and Wildlife $ 1,700,000
Activities associated with the Strawberry Valley ecosystem, the Duchesne River, and the Strawberry Collection system include management of Strawberry Reservoir and restoration of its tributaries to assure trout spawning recruitment; development of management plans; wildlife and riparian habitat rehabilitation; and development of plans for acquisition of big game winter range and angler access along with enhancements to watershed, riparian habitat, and upland wildlife habitat.

Statewide Fish, Wildlife, and Recreation $ 2,700,000
Statewide proposals include activities associated with acquiring public access; restoring native cutthroat populations; restoring fish habitat; improving small dams and

watersheds; improving fish hatchery production; and conducting inventories of sensitive plant and wildlife species and ecosystems. Activities within the Great Salt Lake Wetland ecosystem include the development of a management plan, and acquisition and development of wetlands adjacent to the Great Salt Lake. Activities in the Fremont Drainage include the development and implementation of plans to improve the watershed, stream, and riparian habitats for fish and wildlife.

TITLE III Subtotal	$9,700,000

Section 201(a)(1) Mitigation Measures
Responsibility for completing mitigation measures committed to in Bureau of Reclamation planning documents has been transferred to the Commission. Funds authorized for such measures in Sec. 201(a)(1) will be used to complete Jordanelle Reservoir recreation facilities, make instream improvements for fish habitat, acquire fisherman access, and plan waterfowl management areas.

Section 201(a)(1) Subtotal	$2,000,000
Commission Subtotal	**$11,700,000**

Office of the Secretary

Federal Contribution	$5,000,000

Sec. 402(b)(2) provides for a Federal contribution of $5 million to the principal of the Utah Reclamation Mitigation and Conservation Account in each fiscal year through 2001. Sec. 314 provides that this contribution has the first priority of any funds appropriated for Titles II through IV in each fiscal year.

Fish and Wildlife Conservation Projects	$ 300,000

Sec. 314(c) provides that three percent of funds allocated for Title III activities are to be used by the Secretary for conservation projects outside the State of Utah.

Program Oversight & Administration	$ 1,100,000

Funds are requested for a small staff located in Provo, Utah to provide oversight, review, and liaison with the District, the Commission, and the Ute Indian Tribe, and to assist in administering the responsibilities of the Secretary under the Act.

Office of the Secretary Subtotal	**$6,400,000**
TOTAL REQUEST	**$43,627,000**

COMMISSIONER MARTINEZ' OPENING REMARKS

Mr. MARTINEZ. Chairman, members of the committee, it's a privilege and honor for me to be here today. I've been Commissioner for about 3 months and I've been trying to absorb the Washington culture and the Federal budgetary process. The Bureau of Reclamation, as you know, is moving from a civil works construction agency to a water management agency. Having come from an organization in New Mexico dealing with the management of water, I believe there is a strong need, a strong role, for the Federal government to play in water management. States went through basically the same history, from water development to water management. We're now looking at issues of efficient use of water, conservation of water, water transfers, and providing leadership in areas where States are involved in compacts, international treaties, and so forth. I would hope to bring 24 years of experience in State water issues, 4 years as State Engineer, to bear in the new mission of the Bureau of Reclamation.

Our budget request for fiscal year 1997 basically is a flat request from fiscal year 1996, less than 1 percent increase. We continue to place great emphasis on our dam safety program and maintenance of our structures and facilities, because the Nation has a large investment in these facilities. We need to make sure that they're adequately maintained and that they provide the services for which they were built.

The Bureau of Reclamation has reduced its FTE's over the last 3 years, by about 1,500, for now a leaner, I guess maybe not meaner, organization of about 6,400 FTEs in fiscal year 1997. I want to recall in reading material that's down from about 30,000 of what it was when we were building the large dams in the West, but I think that's reflective of the change in the water issues across the West. We're now moving into an era of management versus construction, and I think that's where the challenges lie. It's always easy to build from a technical perspective but when you start dealing with management issues and dealing with the complex competing interests, it becomes a little bit more interesting and calls for more innovative solutions. I look forward to working with this committee and thank you.

[The prepared statement of Mr. Martinez and the Bureau of Reclamation justification material follow:]

OPENING STATEMENT
OF
THE HONORABLE ELUID L. MARTINEZ
COMMISSIONER OF RECLAMATION
BEFORE THE
THE HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

March 27, 1996

Mr. Chairman and Members of the Subcommittee, my name is Eluid Martinez, and I am the Commissioner of Reclamation. I appreciate the opportunity to appear before the Subcommittee this morning to discuss the Bureau of Reclamation's fiscal year 1997 budget request.

In 1902 the Bureau of Reclamation was established to develop and manage water and related resources in the Western United States. Today, Reclamation delivers 30 million acre-feet of irrigation and municipal and industrial water to more than 28 million people, and is the largest wholesaler of water in the United States. Reclamation's 58 powerplants generate an average 42 billion kilowatt hours of electrical energy annually, making it the ninth largest electric power producer in the Nation.

In this time of budget-consciousness, the Bureau of Reclamation is continuing its evolution from a civil works agency into a water resources management agency. Bureau of Reclamation programs have evolved from emphasizing delivery of irrigation water to include a broad range of other uses, including urban needs, Indian self-sufficiency, fish and wildlife protection, endangered species recovery, environmental restoration, and recreation. At the same time, many older projects that Reclamation operates are requiring more intense maintenance.

In keeping with the President's Reinventing Government Initiative, the Bureau of Reclamation has been seeking "customer" input; asking whether some of the work we do could be accomplished as well or better without Federal involvement; looking for ways to cut costs or improve performance through competition; seeking cost sharing opportunities and ways to put customers first, cut red tape, and empower employees. We are actively implementing these ideas and seeing good fruit from these efforts.

The Bureau of Reclamation's FY 1997 Budget request reflects the transition in our mission that has already begun. The total budget request of $765 million in net current authority is comparable to the appropriation of $759 million for FY 1996.

Before describing our request for individual programs, let me discuss several programs of interest.

TITLE TRANSFERS

The Bureau of Reclamation is increasing its on-going efforts to transfer responsibilities for Reclamation projects in two areas: transferring title to certain appropriate Reclamation projects and facilities and transferring operation and maintenance responsibilities.

These voluntary title transfers are for project facilities that are not identified as being of national importance. Generally, these are single-purpose facilities. The title transfers would be to private beneficiaries and other non-Federal governmental entities interested in obtaining ownership or taking over operational responsibility. Recipients of the title transfers must first satisfy Reclamation that they could efficiently and effectively manage the facilities, if they are not already managing them.

Recently, for example, title was transferred for the irrigation and drainage facilities portion of the Rio Grande project in New Mexico to two water districts. Active negotiations with involved stakeholders are underway on a number of other projects in the 17 Western states.

We are aware that as a precursor to title transfer many complex issues must be resolved, including protection of the public interest and interests of all project beneficiaries, safety concerns, financial obligations, Native American trust responsibilities, liabilities, and environmental concerns and issues.

It has been Reclamation's policy for decades to transfer operation and maintenance of projects to local entities where and when appropriate. In cases of transferring operation and maintenance of multi-use facilities, care must be taken to ensure all parties' interests will be considered.

PARTNERSHIPS

The Bureau of Reclamation has formed new partnerships and enhanced existing partnership arrangements in order to carry out its mission more effectively, and at a lower cost to the taxpayers. Examples of these partnerships include:

** Reclamation is participating in four projects that will reclaim and recycle wastewater for reuse. This effort is intended to develop public confidence in the use of reclaimed water for industrial purposes, landscape irrigation, and groundwater recharge.

** We are emphasizing regional cooperation and consensus among private interests and local, State, and Federal agencies to find the best ways to meet regulatory requirements and to achieve mutual goals. A key example of this is the Bay-Delta accord in California, in which the Reclamation played a key role.

** Reclamation is actively working with other Federal, State, and local agencies and Indian Tribes to restore and protect native and endangered species and their habitat on the Columbia and Snake Rivers in the Pacific Northwest; the Colorado River basin; the Platte River basin; and the rivers along California's coast and in its Central Valley.

** The Bonneville Power Administration will provide $10.4 million to fund major replacements and additions at powerplants in the Pacific Northwest.

These partnerships have allowed Reclamation employees to alter the way we do business, and the way we interact with all of our customers. Through aggressively pursuing these kinds of changes, Reclamation will be able to continue its leadership role in water management at less cost to both the taxpayers and to water users who contract with us.

PERFORMANCE MEASUREMENT

The Bureau of Reclamation staff, on its own initiative, has developed performance measures consistent with the Government Performance and Results Act of 1993. Twenty three indicators have been developed for key program areas, such as Water and Energy Management and Development and Facility Operation.

The key areas are based on a proposed new programmatic budget structure for FY 1998. An annual performance plan, including the indicators, will be developed. The new structure would focus on objectives, which will facilitate program and budget decisions. We plan to work with the Committee to ensure that any new budget formats meet your needs as well as ours. At that point, I hope that the committee would agree to use the new format in enacting FY 1998 appropriations. I urge you and your staffs to work with us in achieving this feature.

REINVENTION

The Bureau of Reclamation has been recognized as a leader among Federal agencies for its reinvention efforts. Reclamation received the Ford Foundation's Innovations in American Government award for redirecting its policies, processes and priorities to address fundamental changes in water resources management. Based on the recommendations of an employee group, Reclamation reduced two layers of management, reduced the workforce by approximately one-third, reduced evaluation time for safety of dam checks, and reduced its internal regulations by over 50 percent..

Now, I would like to focus on Reclamation's FY 1997 Budget request.

Operation and Maintenance

The FY 1997 budget request of $292.9 million for the operation and maintenance program funds the operation of 38 projects and the administration of 14 associated programs. Protection of the existing infrastructure, the delivery of water and power benefits, the conservation of natural resources, and the collection of revenues are among our highest priorities. Reclamation's budget request includes funds necessary to help insure the reliability and operational readiness of the facilities at Reclamation's projects. The Bureau of Reclamation regularly conducts preventive maintenance and performs scheduled minor and major maintenance on a recurring basis. In FY 1997, several new features will be transferred to the O&M program, including operation of the San Justo Dam in the Central Valley Project, water exchange facilities on the Umatilla Basin Project, and additional delivery systems on the Mni Wiconi Project.

Construction Program

The $392.5 million request for the Construction Program provides for funding continued work on 33 major projects, a number of smaller projects and programs, and applied research activities in the Science and Technology program.

For major projects close to completion, Reclamation is committed, within budgetary limitations, to seek sufficient funding so that project benefits can be realized and repayment of the Federal investment can be initiated. Each project is examined to determine if uncompleted portions should either be left uncompleted or be completed by non-Federal entities. If the decision is made to have Reclamation complete the project, funding is requested to complete the project as quickly as possible, within budgetary constraints.

The Safety of Dams program to protect persons and property continues to be the Bureau of Reclamation's highest priority. The request of $64.2 million for this program is to continue modification and construction work on 9 Reclamation dams. The Initiate Safety of Dams Corrective Action program will provide for the preparation of designs, modification reports, and corrective activities for up to 32 dams. Because of its expertise in the dam safety area, Reclamation also assists other Interior agencies with their dam safety programs. An outside peer review of the Safety of Dams program will be performed to evaluate the program's strengths and weaknesses.

The budget request includes $11 million to complete work at Folsom Dam. That situation has required extensive repairs to bring the facility up to current standards. The funding will complete repairs to the gate and provide for strengthening of the remaining seven gates.

The request includes $71.7 million for the Central Arizona Project, $ 56.9 million for the Central Valley Project, $28.4 million for the Mni Wiconi Project, $21.6 million for the Garrison Project, and $10 million for the Animas-La Plata Project.

Loan Program
Included in the $12.7 million request are seven ongoing loans. One is for the Schuk Toak District of the Tohono O'odham Nation for development of an on-farm irrigation system, using water delivered under the terms of the Southern Arizona Water Rights Settlement Act of 1982. Another loan is for the Eastern Municipal Water District No. 3 for water reclamation for irrigation, wetlands, and municipal and irrigation use. The remaining five loans also concentrate on better utilizing water supplies through reclamation and reuse.

General Investigations
Funding of $15.1 million is requested for 34 ongoing studies and 18 new planning studies. This program involves strategies to meet future water quality and quantity needs through effective management and conservation of water.

General Administrative Expenses
The $49 million request funds overall program and personnel policy management; equal employment opportunity; safety and health management; budgetary policy formulation; information resources management; procurement and property policy; public affairs coordination; and organizational and management analysis.

Central Valley Project Restoration Fund
The $38.1 million requested for this program will provide funding for habitat restoration, improvement, and acquisition, as well as other fish and wildlife restoration activities directed by Title 34 of Public Law 102-575. That Act provides for comprehensive and coordinated actions, including protection of the San Francisco Bay and Delta, while bringing long-term benefits to California's environment and economy. The program is financed by revenues from water and power users.

A program to acquire additional water supplies to supplement the quantity of water dedicated to fish and wildlife will be continued, requiring $11.3 million. Another $12.3 million is requested for programs to restore declining populations of anadromous fish, to avoid loss of juvenile fish resulting from unscreened or inadequately screened diversions, and to assess and monitor the effectiveness of various fish and wildlife restoration activities. Improvements costing $2 million will be made to the Coleman National Fish Hatchery, in coordination with the U.S. Fish and Wildlife Service.

Reclamation plans to use $3.5 million from the CVP Restoration Fund to finance continuation of the Shasta temperature control device to control water temperatures in the Upper Sacramento River for the benefit of anadromous juvenile salmon.

Mr. Chairman and Members of the Subcommittee, this concludes my prepared remarks. I would be happy to respond to any questions Members may have concerning the Reclamation program and our FY 1997 Budget request.

BIOGRAPHY OF ELUID L. MARTINEZ
COMMISSIONER
BUREAU OF RECLAMATION

Eluid Martinez is the Commissioner of the Bureau of Reclamation in the Department of the Interior. Reclamation, the nation's largest wholesale water supplier and the nation's ninth largest electric power generator, operates and maintains water storage, water distribution, and electric power generation facilities in the 17 Western States.

Confirmed by the U.S. Senate December 22, 1995, Mr. Martinez, 51, arrives to this post with a long history of water resource administration, management, and flood protection experience. He retired from 31 years of state government employment in 1994, having been involved in New Mexico water issues for 24 years.

From 1990 to 1994, Mr. Martinez served as State Engineer of New Mexico and Secretary of the New Mexico Interstate Stream Commission. Prior positions include Principal Water Rights Hearing Examiner for the State Engineer, Chief of the Technical Division, and numerous other related posts.

His main goal for the Bureau of Reclamation consists of a continuing emphases on water resource management for the benefit of all constituencies, including irrigators, cities, Native Americans, recreational interests, and fish and wildlife needs. Mr. Martinez will carefully review Reclamation's water management policies and procedures and its dam safety program to ensure the quality of these vital programs. "Providing for our beneficiaries in a manner that safeguards their water supplies while ensuring the integrity of the West's environmental values is my number one concern," Mr. Martinez has said.

A native of Rio Arriba County, New Mexico, Mr. Martinez earned a B.S. in civil engineering from New Mexico State University and completed graduate courses at the University of New Mexico. He has held extensive civic appointments and has been a member of 12 regional and national water associations, including the New Mexico Water Quality Control Commission, Western States Water Council, Association of Western State Engineers, and the Interstate Council on Water Policy. Mr. Martinez is a brother in three honorary engineering fraternities.

An accomplished artist, Mr. Martinez hails from a rich heritage of nine generations of woodcarvers, or santeros. Many of his sculptures, lithographs, and prints dwell in the permanent collections of the Smithsonian Institution, Museum of American Folk Art in New York, Denver Art Museum, and others.

Mr. Martinez and his wife Suzanne have raised three children. They divide their time between Santa Fe, New Mexico, and Washington, D.C.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUDGET JUSTIFICATIONS, F.Y. 1997

BUREAU OF RECLAMATION

NOTICE: These budget justifications are prepared for the Energy and Water Development Appropriations Subcommittee. Approval for release of the justifications prior to their printing in the public record of the Subcommittee hearings may be obtained through the Office of Budget of the Department of the Interior

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Executive Summary

The Bureau of Reclamation is an agency of the Department of the Interior, established in 1902, to develop and manage water and related resources in the Western United States. Originally established to open the West to homesteading, Reclamation is well on its way to becoming a premier water resources management agency.

For FY 1997, Reclamation is requesting $765 million of net current authority or an increase of $7 million above the amount enacted for FY 1996.

Reclamation's 58 powerplants generate an average of 42 billion kilowatt hours of clean electrical energy, and Reclamation is the sixth largest electric power producer in the West. Reclamation delivers over 28 million acre-feet of irrigation and municipal and industrial water to more than 30 million people and is the largest wholesaler of water in the United States.

Reclamation continues its evolution from a civil works agency into a water management agency that is meeting the challenge of supplying water to an increasing and more diverse population. Reclamation's programs have evolved from those with an emphasis on irrigation and hydropower generation to include a much broader range of other uses -- urban needs, Indian self- sufficiency, fish and wildlife protection, endangered species recovery, recreation and environmental restoration.

Since water supplies are finite, innovative actions, such as water conservation, water marketing, reclamation, reuse and transfers will be critical to stretching limited supplies among this broad range of competing uses. Reclamation can and will provide the leadership to do this.

Key to Reclamation's success is the ability to form new partnerships and enhance existing relationships with other Federal and non-Federal entities.

For example:

As authorized by Title 16 of Public Law 102-575, Reclamation is participating in several projects that will reclaim and recycle wastewater for reuse. There are four projects involved in this effort to develop public confidence in the use of reclaimed water for industrial purposes, landscape irrigation and for groundwater recharge.

Bonneville Power Administration will fund, with $10.4 million, major replacements and additions at Reclamation powerplants in the Pacific Northwest.

Almost all of the studies in the General Investigations program have cost-sharing partners. In FY 1997, the program includes approximately $8.2 million of non-Federal contributions.

This Administration and Interior have developed a new model of regional cooperation and consensus among stakeholders, a model styled on bringing all interested parties together to find the best ways to meet regulatory objectives and achieve consensus. One example of this is the Bay-Delta accord in which Reclamation is an important player.

The U.S. Fish and Wildlife Service and Reclamation in conjunction with the CVP Roundtable members decide how Central Valley Project Restoration Funds will be allocated for each project/initiative. The CVP Roundtable includes water district personnel, power representatives, and other interested groups such as the Bank of America, Environmental Defense Fund, Share the Water Coalition, and the Metropolitan Water District.

By working cooperatively with water users, the environmental community, and the public to tailor conservation to local conditions, we can achieve significant water conservation.

Reclamation leverages its Applied Science and Technology Development program investment through effective partnerships with other Federal agencies, universities, National Academy of Science, and others. Reclamation also supports an aggressive program aimed at transferring Reclamation-developed science and technology to American industry.

Highlights of individual appropriations follow:

Operation and Maintenance, $292.9 million request. The delivery of water and power benefits, the protection of the infrastructure, the conservation of natural resources, and the collection of revenues remain Reclamation's principal priorities. Reclamation regularly conducts preventive maintenance and performs scheduled minor and major maintenance on a recurring basis. The funds requested will provide for the operation of 38 projects and the administration of 14 associated programs. Several new features such as water exchange facilities on the Umatilla Basin Project; operation of San Justo Dam, Central Valley Project, and additional delivery systems on the Mni Wiconi Project will be transferred to O&M status in 1997.

Reclamation is committed to pursuing a voluntary program of title transfer for appropriate project facilities that are not identified as having national importance, if they could be efficiently and effectively managed by non-Federal entities. Title for Rio Grande Project irrigation and drainage facilities was recently transferred to two water districts. The transfer process is complex because of the need to address safety issues, Native American trust concerns, liability, valuation, and environmental issues. Active negotiations with involved stakeholders are underway on a number of other projects throughout the Western States.

Construction Program, $392.5 million request. Funding is requested for the continued construction of 33 major projects, a number of smaller projects and programs, and applied research activities in the Science and Technology program.

The Safety of Dams program, for the protection of persons and property, continues to be Reclamation's highest priority. Funding of $64.2 million is requested for continuing modification and construction work on 10 Reclamation dams. The Initiate Safety of Dams Corrective Action program will provide for the preparation of designs, modification reports and correction action activities for up to 32 dams. Because of the importance of the dam safety program, an outside review will be performed to evaluate the program's strengths and weaknesses. As coordinator of Interior's dam safety program, Reclamation advises and assists other Interior agencies with their dam safety programs.

Activities to protect and recover endangered or threatened species in the Columbia, Snake, and Colorado River basins will continue.

Funds of $11 million will be used to complete the repairs to the Folsom Dam Gate 3 which failed in July 1995 and to strengthen the remaining seven gates.

For major projects close to completion, Reclamation is committed, within budgetary limitations, to seek sufficient funding so that project benefits can be realized and repayment of the Federal investment can be initiated.

Loan Program, $12.7 million request. Funding is requested for seven ongoing loans. One, to the Schuk Toak District, will allow the Tohono O'odham Nation to use the water delivered under the terms of the Southern Arizona Water Rights Settlement Act of 1982. Another loan, to the Eastern Municipal Water District No. 3 will provide reclaimed water for irrigation, wetlands, and M&I use. The remaining five loans also concentrate on water supply augmentation through reclamation and reuse.

General Investigations, $15.1 million request. The program consists of 34 ongoing studies ($13.4 million) and 18 new studies ($1.7 million). The primary focus is on improved water management.

General Administrative Expenses, $49 million request. This request funds overall program and personnel policy management; equal employment opportunity; safety and health management; budget policy formulation; information resources management; procurement and property policy; public affairs coordination; and organizational and management analysis.

Central Valley Project Restoration Fund, $38.1 million request. This Fund was established by Title 34 of Public Law 102-575, to provide funding from project beneficiaries for habitat restoration, improvement and acquisition, and other fish and wildlife restoration activities in the Central Valley Project area of California.

The request for providing water to wildlife refuges and acquiring water to supplement the quantity dedicated to fish and wildlife purposes is $11.3 million. Another $12.3 million is requested for programs to restore declining populations of anadromous fish, to avoid losses of juvenile fish resulting from unscreened or inadequately screened diversions, and to assess and monitor the effectiveness of various fish and wildlife restoration activities. Improvements in the Coleman National Fish Hatchery, done in coordination with the U.S. Fish and Widlife Service, require $2 million. The temperature control device at Shasta Dam to control water temperatures in the Upper Sacramento River for the benefit of anadromous salmonoids will be funded at $3.5 million.

Other Information

Reclamation also is proposing a new programmatic budget structure to display its activities more clearly beginning in FY 1998. Reclamation will discuss this proposal with Congress and urge its adoption. One important advantage of the new structure is that it will facilitate the development of meaningful performance measures.

Detailed information on projects, programs and studies will be found on the following pages.

SUMMARY BY ACCOUNT
BUDGET AUTHORITY (BA) TABLE - FY 1995 - 1997
($ in Thousands)

	FY 1995 Enacted	FY 1996 Enacted	FY 1997 Request
Operation and Maintenance	274,300	273,076	292,876
Construction Program	432,153	411,046	392,524
Emergency Fund	1,000	0	0
Loan Program	9,600	11,668	12,715
General Investigations	14,190	12,684	15,095
General Administrative Expenses	54,034	48,150	48,971
Central Valley Restoration Fund	33,562	43,530	38,096
Working Capital Fund	(2,711)	0	0
CRDF Transfer to WAPA	(1,800)	(4,556)	(3,774)
GROSS CURRENT AUTHORITY	814,328	795,598	796,503
CVP Restoration Fund Offset	(28,845)	(37,490)	(31,298)
NET CURRENT AUTHORITY	$785,483	$758,108	$765,205
Trust Funds	22,512	23,439	18,306
Miscellaneous Permanents	246	280	280
Upper and Lower Basin Funds (Net)	11,674	(22,509)	(9,812)
Loan Liquidating Account	0	(2,829)	(2,859)
Colorado River Dam Fund (CRDF)	39,026	36,382	42,951
NET PERMANENT AUTHORITY	73,458	34,763	48,866
GRAND TOTAL	858,941	792,871	814,071

OPERATION AND MAINTENANCE

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OPERATION AND MAINTENANCE

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OPERATION AND MAINTENANCE

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Operation and Maintenance

Description

The Operation and Maintenance (O&M) Program provides for efficient and effective operation of water and power facilities to provide project benefits. Many of Reclamation's resource management and protection activities are funded through the O&M Program. Reclamation focuses on improving operations to provide added value and greater benefits from existing projects to help meet increasing multiple water uses.

The maintenance program ensures the reliability and operational readiness of 348 storage reservoirs and 254 diversion dams; thousands of miles of canals, water distribution systems, and drains; more than 260 pumping plants; 58 powerplants; and recreation facilities so that protection of the Federal investment is maintained. The O&M program also provides for the management and protection of the waters, lands, and other natural resources associated with Reclamation developments.

Reclamation continues to place a high priority on the Operation and Maintenance Program. The FY 1997 request of $292,876,000 is an increase of $19,800,000 over the FY 1996 appropriation.

FY 1997 Program
Appropriation Financed Projects and Programs

The request includes $249,228,000 for operation and maintenance of specific projects. The funds will provide for basic operation of facilities and will allow Reclamation to perform those critical maintenance tasks that are required to achieve a reliable continuation of services. Funds also will be directed toward a sound and cost effective preventive maintenance program.

The increase of $16.6 million in funding for specific projects includes $7 million for payment to the State of California for operation and maintenance of the San Luis Unit Joint-Use Facilities. Additional funding also is required for power-related maintenance items and for conversion from wide-band radio spectrum to narrowband radio spectrum.

First-year funding is required for operation of the Columbia-Cold Springs pumping plant, a feature of the water exchange facilities on the Umatilla Basin Project. The operation of San Justo Dam, San Felipe Division, Central Valley Project, is expected to be transferred from construction status to the operation and maintenance program by FY 1997. Also, additional water delivery systems on the Mni Wiconi Project will be transferred to O&M status in FY 1997.

The budget request also provides $43,648,000 for the associated O&M programs for activities that benefit multiple projects, where an allocation is not yet possible, or where there is no specific project to fund these activities.

The increase of $2.8 million over FY 1996 provides for continued emphasis on public safety concerns, including a request for the Safety Evaluation of Existing Dams program that is consistent with prior years. In addition, funding is provided for continuation of the Power Management Laboratory, an initiative identified in the National Performance Review.

Program Highlights

Fish and Wildlife

Funding is included for operation of the Coleman National Fish Hatchery, California,to mitigate impacts on Chinook Salmon from construction of Shasta Dam and the Leavenworth, Entiat, and Winthrop National Fish Hatchery Complex, Washington, to mitigate impacts of the Grand Coulee Dam on anadromous fish. Funding also is provided for the Trinity and Nimbus Fish Hatcheries.

Biological work and payment for fish losses at the Tracy Fish Collecting Facilities will continue as will monitoring activities at Kesterson Reservoir. Funding is requested for Reclamation's share of operation and maintenance of the Suisun Marsh facilities by the State of California. Work continues on the Klamath Basin Ecosystem Restoration Program.

Continuing activities include managing natural, restored, and artificially designed fish and wildlife habitats and increasing endangered fish populations.

Native American Concerns

Assistance to Native Americans is provided by delivering water to the Ak-Chin Indian Community, Arizona. The Mni Wiconi Project provides for the operation of newly constructed and existing water systems that deliver municipal, rural, and industrial water to the Pine Ridge, Rosebud, and Lower Brule Indian Reservations, South Dakota.

Additionally, the Garrison Diversion Unit (Dakotas Area Projects) will continue to provide delivery of municipal, rural, and industrial water that meets the requirements of the Safe Drinking Water Act for the Standing Rock, Fort Berthold, and Fort Totten Indian Reservations in North and South Dakota.

In addition to undertaking the inventory report required by the Native American Graves Protection and Repatriation Act, Reclamation will focus on completing consultations for the repatriation of Native American human remains, associated grave goods, and objects of cultural patrimony.

Energy Conservation

The FY 1997 O&M program includes $600,000 for energy conserving measures in Reclamation buildings. This amount is for conducting technical energy surveys and completion of energy retrofit measures such as improved insulation and improvement or replacement of heating, ventilating, and air conditioning systems. The efforts are in support of and in accordance with the National Energy Conservation Policy Act and Executive Order 12759. The FY 1997 program also includes $300,000 for procurement of energy efficient goods and services and $50,000 for alternative fueled vehicles.

Water Conservation

Technical assistance will be provided to irrigation districts in the development and implementation of water conservation plans. Such activities may include water conservation information, educational materials, research findings and technology transfer, water conservation planning guidance, training and workshops. Guidance on the requirements of applicable Federal laws and regulations also may be provided.

Participation in the Corporation for National and Community Service, AmeriCorps, provides environmental resources training and education.

Water Quality

Water quality is enhanced by operation of the Colorado River Basin Salinity Control

Project, Title II, and by various salinity control activities on the Rio Grande.

Storage in the Colorado River is adequate to meet Mexico treaty requirements for salinity; therefore, funding is not proposed for operating the Yuma Desalting Plant, Yuma Area Projects. Funds of $6.0 million, however, are required to maintain the plant in ready reserve status.

Bonneville Power Administration Funding

It is anticipated that $10.4 million will be advanced by the Bonneville Power Administration for major replacements and additions at powerplants on the Boise, Columbia Basin, Hungry Horse, and Minidoka Projects. Reclamation does not seek appropriations for these major replacements. Instead, BPA pays for them directly in order to avoid the time lag associated with the appropriations process.

The following table shows the anticipated funding by project for FY 1996 and FY 1997:

Estimate of Funds For Major Replacements From Bonneville Power Administration:

Projects	FY 1996	FY 1997
Boise Area	$410,000	$ 2,240,000
Columbia Basin	5,920,000	5,403,000
Hungry Horse	3,830,000	1,625,000
Minidoka Area	8,021,000	1,165,000
Total	$18,181,000	$10,433,000

Priorities and Commitments

Reclamation continues to use the Bureau-wide O&M category system in formulating the O&M budget. The goal is to achieve a sustainable level of operation and maintenance of project facilities, and at the same time, continue innovative nonstructural water management programs.

In formulating the FY 1997 budget, a number of programs were given special consideration and funding is included in the FY 1997 budget request. For example, Reclamation will continue dam safety as a priority. Emphasis continues on emergency management activities. Regular examinations of overall procedures for conducting operation and maintenance to ensure that Reclamation facilities are safe and reliable will continue. In addition, emphasis will continue on Life Safety Code deficiencies, resource management plans, water conservation, delivery of water to Native Americans, Native American Graves Protection and Repatriation Act activities, and Title XXXIV of Public Law 102-575.

Other Funding

In addition to the O&M Program funded through appropriations, the Program includes applied revenues of $87,202,000 for O&M of the Central Arizona Project and $59,596,000 for interest on the investment, Lower Colorado River Basin Development Fund, as well as $28,448,000 for O&M of the Colorado River Storage Project; $17,706,000 advanced by other Federal agencies, including those from the Bonneville Power Administration mentioned above; and $17,354,000 from non-Federal entities for O&M of facilities for which they are responsible.

Revenue Financed Programs

Lower Colorado River Basin Development Fund
Upper Colorado River Basin Fund

Operation, maintenance, and replacement programs on the Colorado River Basin Project (Central Arizona Project) and four initial units and four participating projects of the Colorado River Storage Project are funded from revenue collections which are available without further appropriation.

Section 403 of the Colorado River Basin Project Act, Public Law 90-537, provides that all revenues from operation of the project shall be credited to the Lower Colorado River Basin Development Fund and be available without further appropriation to defray the costs of operation, maintenance, replacements, and emergency expenditures of the project.

Section 5(c) of the Colorado River Storage Project Act, Public Law 84-485, provides that all revenues collected from operation of the Colorado River Storage Project and participating projects shall be credited to the Upper Colorado River Basin Fund and shall be available without further appropriation for defraying the costs of operation, maintenance, replacement, and emerency expenditures of facilities of the project and participating projects.

Permanent Appropriation Financed Program

Colorado River Dam Fund

With passage of the Hoover Power Plant Act of 1984, a Permanent Appropriation was created to finance operation, maintenance, and replacement costs of the Boulder Canyon Project. Details can be found behind the Permanent Appropriation tab.

Summarized Financial Data

Operation & Maintenance	**Enacted FY 1996**	**Request FY 1997**
Appropriation	$273,076,000	$292,876,000
Application of prior year funds	19,106,053	- 0 -
Funds advanced by water users	11,437,000	16,217,000
Funds advanced by states, municipalities, and by other Non-Federal agencies	1,039,000	1,042,000
Funds advanced by other Federal agencies	24,677,000	17,706,000
Applied operating revenues (UCRBF and LCRBDF) 1/	167,054,030	175,246,000
Funds advanced by water users (operating revenues)	100,000	95,000
Total obligations	$496,489,083	$503,182,000
Non-Federal participation - services	42,000	40,000
Total program	$496,531,083	$503,222,000

1/ Upper Colorado River Basin Fund and Lower Colorado River Basin Development Fund.

BUREAU OF RECLAMATION
OPERATION AND MAINTENANCE

Detail of Funding FY 1996 and FY 1997
(in thousands of dollars)

Project/Program	Fiscal Year 1996 New Budget Authority	Fiscal Year 1996 Prior Year Funds Applied	Fiscal Year 1996 Non-Fed. Contri-bution	Fiscal Year 1996 Other Federal Agencies	Fiscal Year 1996 Total Program	Fiscal Year 1997 New Budget Authority	Fiscal Year 1997 Non-Fed. Contri-bution	Fiscal Year 1997 Other Federal Agencies	Fiscal Year 1997 Total Program
Projects:									
Boise Area	4,378	340	694	410	5,822	6,770	745	2,240	9,755
Cachuma	691	0	0	0	691	1,153	0	0	1,153
Carlsbad	1,355	196	16	0	1,567	1,710	24	0	1,734
Central Valley									
American River Division	7 489	1,313	0	0	8,802	6,453	0	0	6,453
Delta Division	8,842	626	0	0	9,468	7,911	0	0	7,911
East Side Division	2,024	39	0	0	2,063	2,709	0	0	2,709
Friant Division	8,938	92	0	0	9,030	8,862	0	0	8,862
Project General (CVP)	8,533	553	0	0	9,086	6,421	0	0	6,421
Sacramento River Division	2,796	97	0	0	2,893	2,318	0	0	2,318
San Luis Unit	1,250	347	0	0	1,597	9,308	0	0	9,308
Shasta Division	6,753	0	0	0	6,753	6,074	0	0	6,074
Trinity River Division	5,492	33	0	0	5,525	3,955	0	0	3,955
Water and Power Operations	2,873	246	0	0	3,119	4,291	0	0	4,291
Subtotal - CVP	54,990	3,346	0	0	58,336	58,302	0	0	58,302
Central Valley Improvement Act	6,128	566	0	0	6,694	7,356	0	0	7,356
Collbran	756	172	0	0	928	388	382	0	770
Colo River Basin Salinity Control:									
Grand Valley Unit	733	359	0	0	1,092	657	0	0	657
Lower Gunnison Basin Unit	432	0	0	0	432	352	0	0	352
Paradox Valley Unit	2,850	315	0	0	3,165	2,874	0	0	2,874
Columbia Basin	38,061	2,982	1,777	5,920	48,740	39,090	1,753	5,403	46,246
Crooked River	207	63	0	0	270	368	0	0	368
Dakotas Area	6,812	70	0	0	6,882	7,344	0	0	7,344
Deschutes	84	30	0	0	114	266	0	0	266
Dolores (CRSPP)	511	22	0	0	533	366	0	0	366
Eastern Colorado	11,611	8	602	0	12,221	11,451	472	0	11,923
Great Plains Area	1,570	302	0	0	1,872	2,384	0	0	2,384
Hungry Horse	2,118	100	0	3,830	6,048	2,115	0	1,625	3,740
Indian Water Rights Settlement 1/	6,391	3	0	5,082	11,476	7,073	0	5,322	12,395
Klamath	1,824	0	135	0	1,959	2,030	135	0	2,165
Middle Rio Grande	8,580	963	1,264	0	10,807	9,380	1,278	0	10,658
Minidoka Area	8,802	500	1,436	8,021	18,759	10,653	1,601	1,165	13,419
Montana Area	8,732	261	570	0	9,563	7,998	397	0	8,395
Nebraska/Kansas Area	3,032	34	0	130	3,196	3,543	0	130	3,673
Oklahoma/Texas Area	2,421	87	0	0	2,508	2,709	0	0	2,709
Orland	562	0	0	0	562	570	0	0	570
Parker-Davis	4,101	436	1,282	0	5,819	2,323	3,584	0	5,907
Pecos River Basin Water Salvage	386	69	100	0	555	380	100	0	480
Provo River	210	18	0	0	228	227	0	0	227
Rapid Valley	0	0	53	0	53	0	63	0	63
Rio Grande	2,935	0	332	0	3,267	3,288	388	0	3,676
Rogue River Basin, Talent Division	438	70	0	0	508	744	0	0	744
San Juan-Chama	327	0	1,046	0	1,373	328	1,434	0	1,762
San Luis Valley:									
Closed Basin Division	3,195	72	0	0	3,267	3,250	0	0	3,250
Conejos Division	2	0	8	0	10	3	7	0	10
Solano	1,732	0	0	0	1,732	1,851	0	0	1,851
Tualatin	81	22	121	0	224	107	128	0	235
Umatilla	705	115	63	391	1,274	877	68	532	1,477
Upper Colorado Area	2,336	191	0	0	2,527	3,340	0	0	3,340
Washoe	1,500	0	0	0	1,500	1,104	0	0	1,104
Wayne N. Aspinall Unit, CRSP	0	33	0	0	33	0	0	0	0
Yakima	7,314	248	1,331	893	9,786	10,335	2,312	1,289	13,936
Yuma Area	21,332	178	50	0	21,560	20,380	1,050	0	21,430
Wyoming Area	12,419	247	404	0	13,070	13,789	401	0	14,190
Subtotal - Projects	232,644	12,418	11,284	24,677	281,023	249,228	16,322	17,706	283,256
ASSOCIATED O&M PROGRAM:									
Dept. Irrigation Drainage Program	2,917	455	0	0	3,372	3,109	0	0	3,109
Drought Contingency Plannings	0	47	0	0	47	0	0	0	0
Environmental Program Admin.	1,169	283	0	0	1,452	2,255	0	0	2,255

Project/Program	Fiscal Year 1996					Fiscal Year 1997			
	New Budget Authority	Prior Year Funds Applied	Non-Fed. Contri-bution	Other Federal Agencies	Total Program	New Budget Authority	Non-Fed. Contri-bution	Other Federal Agencies	Total Program
Examination of Existing Structures	2,148	694	150	0	2,992	1,669	32	0	1,701
Land Resources Management	5,769	625	0	0	6,394	7,190	0	0	7,190
Miscellaneous Flood Control	587	122	0	0	709	965	0	0	965
Nego/Admin of Water Marketing Contr.	7	0	19	0	26	37	19	0	56
O&M Program Mgmt Development	195	109	0	0	304	334	0	0	334
Power Program Services	927	180	0	0	1,107	1,187	0	0	1,187
Public Access and Safety Program	690	249	0	0	939	451	0	0	451
Reclamation Law Administration	4,143	725	36	0	4,904	4,619	36	0	4,655
Rec and F&WL Program Administration	3,408	1,339	977	0	5,724	3,261	850	0	4,111
Safety Evaluation of Existing Dams	7,690	379	0	0	8,069	9,416	0	0	9,416
Soil and Moisture Conservation	209	64	0	0	273	245	0	0	245
Water Management and Conservation	10,573	1,417	10	0	12,000	8,910	0	0	8,910
Subtotal - Assoc. O&M Programs	40,432	6,688	1,192	0	48,312	43,648	937	0	44,585
TOTAL APPROPRIATED O&M	273,076	19,106	12,476	24,677	329,335	292,876	17,259	17,706	327,841
LOWER COLORADO RIVER BASIN DEVELOPMENT FUND;									
Colorado River Basin Project	0	0	91,009	0	91,009	0	87,202	0	87,202
Interest Payment	0	0	46,258	0	46,258	0	59,596	0	59,596
Subtotal - LCRBDF	0	0	137,267	0	137,267	0	146,798	0	146,798
UPPER COLORADO RIVER BASIN FUND:									
Consumptive Use Studies	0	0	250	0	250	0	250	0	250
Dolores	0	0	422	0	422	0	416	0	416
Emergency Funds	0	0	500	0	500	0	500	0	500
Initial Units	0	3,543	27,548	0	31,091	0	26,221	0	26,221
Quality of Water Studies	0	0	250	0	250	0	250	0	250
Safety Evaluation of Existing Dams	0	0	300	0	300	0	324	0	324
Seedskadee	0	175	617	0	792	0	582	0	582
Subtotal - UCRBF	0	3,718	29,887 2/	0	33,605 2/	0	28,543 2/	0	28,543 2/
TOTAL O&M PROGRAM	273,076	22,824	179,630 3/	24,677	500,207	292,876	192,600 3/	17,706	503,182

1/ The other Federal contribution is the interest on the cooperative funds authorized under Title III, Southern Arizona Water Rights Settlement Act, P. L. 87-283, dated October 1982.

2/ Includes $29,787,030 in revenues and $100,000 in water user advances in FY 1995 and $28,448,000 in revenues and $95,000 in water user advances in FY 1996.

3/ Does not include in-kind services of $42,000 in FY 1995 and $40,000 in FY 1996.

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OPERATION AND MAINTENANCE APPROPRIATION FINANCED PROGRAMS

(Projects)

Boise Area Project
Idaho, Oregon

Location The project is located in southwestern Idaho and in eastern Oregon.

Description The project provides irrigation water for about 377,000 acres and hydropower, flood control, recreation, and fish and wildlife benefits. The project consists of four storage dams and reservoirs, two diversion dams, recreation areas at three reservoirs, and three powerplants with a combined generating capacity of 51,500 kilowatts and average generation of about 210,000,000 kilowatt-hours. Canals, water distribution systems, and other storage facilities are operated and maintained by the water users.

Work continuing The request includes $5,031,000 for continuing the operation and maintenance functions of the projects including expenses such as personnel costs, materials and supplies, and management of recreation areas. This amount includes $35,000 for various continuing replacements, additions, and extraordinary maintenance items.

Work starting in FY 1997 The request includes $320,000 for replacements and additions such as $130,000 for addition of a cooling water filtration system at Black Canyon Powerplant which will prevent cooling water piping clogging and generator down time; $45,000 for replacement of the Anderson Ranch Powerplant station service battery to provide control and protective relay power in the event of a fault; $45,000 for the narrowband radio conversion of all project base stations; $40,000 for the Crown Point waterline; $40,000 for the sewer hookup for recreation sites at Cascade Reservoir; and $20,000 for the manometer replacement to the read reservoir level.

The request also includes $256,000 for extraordinary maintenance which includes $245,000 for repair of transformers at Anderson Ranch Powerplant which are leaking oil and risk failure; and $11,000 for spillway fence repair on the north side of Anderson Ranch Dam to prevent rock and debris from entering the stilling basin.

In addition, $583,000 is included for new activities of which $261,000 is for activities related to elimination of unauthorized use of water; $225,000 for Geographic Information System (GIS) data gathering for Reclamation lands and contract administration; $50,000 for law enforcement at recreation areas; and $47,000 for repair and replacement of dam instrumentation equipment which is critical to monitoring safe dam performance. Funds also are included for water conservation activities.

Changes from FY 1996	The changes primarily reflect new work starting in FY 1997, increased recreation management activities for new facilities, and other increases in routine operating expenses.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$4,378,000	$6,770,000
Other Agency	$ 410,000	$2,240,000
Non-Federal	$ 694,000	$ 745,000

Cachuma Project
California

Location This project is located in southern California.

Description The Cachuma Project facilities consist of five storage dams and reservoirs, two tunnels totaling 7.5 miles, 24.3 miles of conduit, and various distribution systems. The project provides supplemental irrigation water to approximately 38,000 acres and a supply of municipal water to the city of Santa Barbara and other urban areas located in Santa Barbara County on the southern slope of the Santa Ynez Mountains. Project facilities also are operated to provide recreation benefits. Bradbury Dam and Reservoir are operated and maintained by Reclamation. Operation and maintenance of all other project facilities are performed by the water users.

Work continuing The request includes $1,038,000 of which $614,000 is for the routine operation and maintenance of Bradbury Dam and Reservoir which includes personnel costs, materials and supplies, minor contracts, and other related activities. Also included is $424,000 for resource management activities which began in FY 1994, including land management reviews, compliance with environmental laws and policies, erosion control and habitat improvement.

Work starting in FY 1997 The request also includes $115,000 for miscellaneous equipment replacement, road improvements, improvement to public access facilities and replacement of an elevation manometer at Bradbury Dam.

Changes from FY 1996 The change reflects an increase for routine operation and maintenance activities to provide an adequate level of funding as facilities increase in age. Also included are increases for critical resource management issues involving the Fish and Wildlife Coordination Act; NEPA and ESA activities, which include Section 7 consultations; meeting the requirements of the resulting biological opinion; and implementing endangered species recovery plans. The change also reflects an increase for negotiation and renewal of water service contracts and responding to lawsuits involving endangered and threatened species and water rights issues in the Santa Ynez River. In addition, increases are included for habitat improvement, erosion control, and negotiation and administration of recreation, fish and wildlife, and concession agreements.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$691,000	$1,153,000

Carlsbad Project
New Mexico

Location This project is located in southeastern New Mexico.

Description The program consists of facilities associated with Sumner Dam and Lake Sumner, Brantley Dam and Reservoir, Avalon Dam and Reservoir, and a 210-mile distribution and drainage system to irrigate 25,055 acres in the Carlsbad Irrigation District. The above facilities provide irrigation, flood control, and recreation benefits. Reclamation reimburses the water users for the nonreimbursable portions of operation and maintenance of multipurpose facilities.

Work continuing The request of $1,710,000 includes $953,000 for continuing operation and maintenance activities such as personnel costs, supplies and materials, and miscellaneous equipment replacements. Additional activities include $210,000 for Endangered Species ; $200,000 for continuation of the Brantley wildlife operation and maintenance contract with the State of New Mexico Department of Game and Fish; $156,000 to reimburse the Carlsbad Irrigation District for operating the nonreimbursable portion of the dams; and $148,000 for continued land management activities for oil and gas leases, grazing leases, and boundary monitoring. Other minor activities include $25,000 for continuation of the contract with the U.S. Geological Survey for water measurement; $15,000 for continuing flood control activities; and $3,000 is for the Brantley Reservoir Data Collection Platform.

Changes from FY 1996 The increase is due to higher requirements for administrative costs associated with operation and maintenance of Brantley Dam and Reservoir and increased land resource management activities.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,355,000	$1,710,000
Non-Federal	$16,000	$24,000

Central Valley Project
American River Division
California

Location This project is located in the east-central part of the Sacramento-San Joaquin Valley in El Dorado, Placer, Sacramento, and San Joaquin Counties, California.

Description The American River Division facilities include three storage dams and reservoirs, two hydroelectric power plants, one pumping plant, one fish hatchery and 26.7 miles of canal. The project benefits include irrigation, municipal and industrial water, power, flood control, water quality, recreation and fish and wildlife protection and enhancement.

Work continuing The request includes $6,453,000 to continue operation and maintenance (O&M) activities. Included is $5,000,000 to operate and maintain multipurpose facilities which provide water storage and supply, power generation, flood control, and water quality control. Continuing resource management includes public land management recreation, and fish and wildlife activities. Also included is $750,000 for O&M of the Nimbus Fish Hatchery under a cooperative agreement with the State of California, $330,000 for life safety code corrections at the Folsom Dam and Power Plant and Nimbus Power Plant, $313,000 for phase 4 modifications to the Nimbus Fish Hatchery, and $60,000 for modifications at Folsom Dam to provide access to persons with disabilities.

Changes from FY 1996 The change includes decreases in the replacements, additions, and extraordinary maintenance program from FY 1996, the life safety code correction program, and the water marketing program, partially offset by an increase in the hazardous materials management program.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$7,489,000	$6,453,000

Central Valley Project
Delta Division
California

Location The Delta Division is located in Alameda, Contra Costa, Fresno, Merced, Sacramento, and Stanislaus Counties in central California.

Description The Delta Division facilities include 164.4 miles of canal, one pumping plant and switchyard, and the Tracy fish collecting facilities. The Delta Division provides supplemental irrigation service to 181,582 acres, full irrigation service to 45,648 acres, and a municipal and industrial water supply of 101,104 acre-feet. The division also provides fish and wildlife, flood control, navigation, recreation, and water quality benefits.

Work continuing The request provides $6,772,000 to continue operation and maintenance (O&M) activities. Included is $2,790,000 to operate and maintain multipurpose facilities which provide for the transport of water through the central portion of the great Central Valley including the Sacramento-San Joaquin Delta. Continuing resource management activities include recreation, land management and fish and wildlife activities including the Tracy Fish Collecting Facility. Also included is $2,136,000 for water service contract renewals, $971,000 for payment to the State of California for fish losses at the Tracy Fish Collecting Facility, $823,000 for mitigation activities at the Tracy Pumping Plant, and $52,000 for the hazardous materials management program.

Work starting in FY 1997 The request includes $1,139,000 for rehabilitation of timber farm bridges on the Delta-Mendota Canal, land management activities, measures to increase the efficiency and effectiveness of the Tracy Fish Collecting Facility, and geographic information systems and related data gathering technology.

Changes from FY 1996 The change reflects decreases in appropriated funds required for routine operation and maintenance activities at the Tracy Pumping Plant and the Delta-Mendota Canal because water users are to fund these activities; and in the hazardous materials management program; partially offset by increases for replacements, additions, and extraordinary maintenance items, land management activities, and water service contract renewals.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$8,842,000	$7,911,000

Central Valley Project
East Side Division
California

Location The East Side Division is located in Alpine, Calaveras, San Joaquin, Stanislaus, and Tuolumne counties, California.

Description The Stanislaus Division facilities include New Melones Dam, lake, and power plant. The lake has a capacity of 2.4 million acre-feet. The two unit power plant has an installed capacity of 300 megawatts and produces approximately 455 million kilowatt-hours of energy annually. This division also provides flood control, irrigation, municipal and industrial water supply, fishery enhancement, water quality improvement, and recreation. Irrigation and storage facilities have been developed on the Stanislaus River both upstream and downstream of New Melones Dam.

Work continuing The request provides $1,902,000 for continued operation and maintenance of multipurpose facilities, recreation, and land management activities.

Work starting in FY 1997 The request provides $540,000 to replace circuit breakers at the New Melones Power Plant; $114,000 for hazardous materials management; $113,000 for Life Safety Code corrections; and $40,000 for modifications to restrooms at the New Melones recreation areas to provide access for persons with disabilities.

Changes from FY 1996 The change reflects increases for routine operation and maintenance, ongoing resource management activities, Life Safety Code Corrections and the Hazardous Materials Management program.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,024,000	$2,709,000

Central Valley Project
Friant Division
California

Location The Friant Division is located in Fresno, Kern, Madera, and Tulare counties, California.

Description The main facilities of the Friant Division are one storage dam and reservoir and 187 miles of canal. The division provides for storage for irrigation and transportation of surplus northern California water through the southern part of the semiarid Central Valley. The division also provides groundwater recharge, flood control, and municipal and industrial benefits.

Work continuing The request provides $8,586,000 to continue operation and maintenance (O&M) activities. Included is $2,483,000 to operate and maintain multipurpose facilities, and $3,415,000 for rehabilitation of gates on Friant Dam. Also included is $2,688,000 for National Environmental Policy Act compliance related to water service contract renewals and for the hazardous materials management program.

Work starting in FY 1997 The request also provides $276,000 for water conservation, the San Joaquin Valley Endangered Species Recovery Program and San Joaquin Valley Action Plan.

Changes from FY 1996 The change includes a decrease in appropriated funds required for routine O&M activities on the Friant-Kern Canal that will now be provided by the Friant Water Users Authority.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$8,938,000	$8,862,000

Central Valley Project
San Luis Unit
California

Location The San Luis Unit is located near Los Banos on the west side of the San Joaquin Valley and 30 miles southwest of Fresno, California in Fresno, Kings, and Merced counties.

Description The joint-use facilities, of which the operation and maintenance is funded by both Reclamation and the State of California, consist of 2 storage dams and reservoirs, 2 detention dams and reservoirs, one pump-generating plant, one pumping plant, and 101.3 miles of canal. The Federal-only facilities consist of two pumping plants, 188 miles of drain, and 11.6 miles of canal. The San Luis Unit furnishes approximately 1.25 million acre-feet of water as a supplemental irrigation supply to some 600,000 acres located in the western portion of Fresno, Kings, and Merced counties. The unit also provides recreation and flood control benefits.

Work continuing The request provides $9,032,000 to operate and maintain multipurpose facilities.

Work starting in FY 1997 The request provides $276,000 for water marketing and water service contract renewal activities, for the hazardous materials management program, and for implementing geographic information systems and data gathering technologies.

Changes from FY 1996 The increase includes increases in routine operation and maintenance activities, in the hazardous materials management program, for water marketing and water service contract renewals, and for geographic information systems and data gathering activities. Funds for payment to the State of California for operation and maintenance of the joint-use facilities have been included in the request.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,250,000	$9,308,000

Central Valley Project
Sacramento River Division
California

Location The Sacramento River Division is located in Colusa, Glenn, and Tehama counties in northern California.

Description The Sacramento River Division facilities include one diversion dam, one pumping plant, 135 miles of canal and fish facilities. The division provides supplemental irrigation service to 105,199 acres and full irrigation service to 34,319 acres. The division benefits include irrigation, flood control, recreation, and fish and wildlife protection.

Work continuing The request provides $1,766,000 for routine operation and maintenance of multipurpose facilities.

Work starting FY 1997 In addition, $552,000 for work beginning in FY 1997 includes NEPA/ESA compliance, water conservation, water marketing, a baseline limnological study of northern California reservoirs, and the hazardous materials management program.

Changes from FY 1996 The change includes a decrease due to the water users funding the operation and maintenance of the Corning and Tehama-Colusa canals partially offset by increases in resource management activities including NEPA/ESA compliance, water conservation, water marketing and the baseline limnological study of northern California reservoirs.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,796,000	$2,318,000

Central Valley Project
San Luis Unit
California

Location	The San Luis Unit is located near Los Banos on the west side of the San Joaquin Valley and 30 miles southwest of Fresno, California in Fresno, Kings, and Merced counties.
Description	The joint-use facilities, of which the operation and maintenance is funded by both Reclamation and the State of California, consist of 2 storage dams and reservoirs, 2 detention dams and reservoirs, one pump-generating plant, one pumping plant, and 101.3 miles of canal. The Federal-only facilities consist of two pumping plants, 188 miles of drain, and 11.6 miles of canal. The San Luis Unit furnishes approximately 1.25 million acre-feet of water as a supplemental irrigation supply to some 600,000 acres located in the western portion of Fresno, Kings, and Merced counties. The unit also provides recreation and flood control benefits.
Work continuing	The request provides $9,032,000 to operate and maintain multipurpose facilities.
Work starting in FY 1997	The request provides $276,000 for water marketing and water service contract renewal activities, for the hazardous materials management program, and for implementing geographic information systems and data gathering technologies.
Changes from FY 1996	The increase includes increases in routine operation and maintenance activities, in the hazardous materials management program, for water marketing and water service contract renewals, and for geographic information systems and data gathering activities. Funds for payment to the State of California for operation and maintenance of the joint-use facilities, which were eliminated in FY 1996, have been included in the request.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,250,000	$9,308,000

Central Valley Project
Shasta Division
California

Location The Shasta Division is located in Shasta County in northeastern California.

Description The Shasta Division facilities include two storage dams and reservoirs, two hydroelectric powerplants, 2.5 miles of pipeline, and a fish hatchery. The division provides supplemental irrigation service to 499,694 acres, 10,710 acre-feet annually for municipal and industrial, and generation of 614,000 kilowatts of hydropower. Also provided are fish and wildlife, flood control and navigation benefits.

Work continuing The request provides $5,819,000 to continue routine operation and maintenance activities. Included in this amount is $5,314,000 to operate and maintain multipurpose facilities, $366,000 for environmental compliance for water service contract renewals and water marketing and $67,000 for the hazardous materials management program. The request also provides $72,000 to continue repairs to the Shasta Dam gate fill and bypass pipe.

Work starting in FY 1997 The request includes $255,000 for water conservation activities, public access and safety, fish and wildlife resource management and implementation of the geographic information system and related data gathering technology.

Changes from FY 1996 The change reflects a decrease in replacement, additions, and extraordinary maintenance items, hazardous materials management program and water marketing; partially offset by an increase in Life Safety Code Corrections, public access and safety and for new programs which include environmental compliance for water service contracts, land resource management, and water conservation.

Summarized Financial Data

	FY1996	FY1997
Reclamation	$6,753,000	$6,074,000

Central Valley Project
Trinity River Division
California

Location The Trinity River Division is located in Trinity and Humboldt Counties in northwestern California.

Description The Trinity River Division facilities include four powerplants, three storage dams, and one diversion dam, 13.1 miles of tunnels, and one fish hatchery. The facilities provide full irrigation service to 6,676 acres and supplemental water service to 7,121 acres, 4,810 acre-feet annually for municipal and industrial use, and generation of 397,350 kilowatts of hydroelectric power.

Work continuing The request includes $3,183,000 for routine operation and maintenance of multipurpose facilities.

Work starting in FY 1997 The request also includes $772,000 for handicap access activities at the Trinity River Fish Hatchery, the hazardous materials management program, NEPA/ESA compliance activities and water conservation.

Changes from FY 1996 The change reflects a decrease resulting from the expiration of the original authorization of the Trinity River Restoration Program in FY 1996; partially offset by increases in routine operation and maintenance costs and resource management activities including the hazardous materials management program, NEPA/ESA compliance, and water conservation.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$5,492,000	$3,955,000

Central Valley Project
Water and Power Operations
California

Location The Central Valley Project (CVP) Water and Power Operations Office is located near the Regional Office and the Hydro Systems Control Branch is located at the Folsom Power Plant in Sacramento County.

Description The CVP Water and Power Operations office is responsible for annual water supply allocations for the CVP with forecasted hydroelectric power generation capability. The program includes management of the water resources of the CVP including maintenance of daily water and power schedules, flood control, compliance with statutory requirements, the Coordinated Operating Agreement (Public Law 99-546), and needs of the Western Area Power Administration. The office also operates and maintains a supervisory control and data acquisition system to control and monitor operations of project facilities at 16 dams and reservoirs, 11 hydroelectric power generating plants, 2 pump-storage power generating plants, and various remote data collection sites to comply with water permit and environmental requirements.

Work continuing The request of $4,291,000 provides for routine operation and maintenance activities.

Changes from FY 1996 The change reflects increases in routine operation, maintenance, and resource management activities.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,873,000	$4,291,000

Central Valley Project
Central Valley Improvement Act
California

Location This program is located in the north and central portions of California.

Description The program was established pursuant to Title 34 of Public Law 102-575 to provide restoration, improvement, and other fish and wildlife activities in the Central Valley Project area of California.

Work continuing Funding of $7,356,000 is requested for ongoing items required by Public Law 102-575 which includes operation of an irrigation training and research water conservation center; follow up activities on the programmatic environmental impact statement; renewal of long-term water service contracts; and for activities pertaining to water acquisition, project benefits, water transfers, water contracts, water supplies for wildlife refuges, and for miscellaneous water conservation activities required by Public Law 102-575.

Changes from FY 1996 The changes include an increase for long-term water service contract renewals partially offset by decreases in funding for the irrigation training and research center, the follow up activities on the programmatic environmental impact statement, and the Trinity River flow studies.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$6,128,000	$7,356,000

Collbran Project
Colorado

Location This project is located in western Colorado.

Description The Collbran Project developed major parts of the unused water in Plateau Creek and its principal tributaries. The project consists of the Vega Dam and Reservoir, two powerplants, two major diversion dams, 37 miles of canal, and about 18 miles of pipeline and penstock. The project provides full irrigation for 2,500 acres, and supplemental irrigation for 19,000 acres. The two powerplants have a combined generating capacity of 13,500 kilowatts. The Collbran Conservancy District operates all irrigation facilities and Reclamation operates the power facilities.

Work continuing The request of $388,000 is for continuing operation and maintenance expenses such as personnel costs, supplies and materials, and land resources management activities.

Changes from FY 1996 An effort is underway to obtain funding for power-related operation and maintenance costs from power customers.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$756,000	$388,000
Non-Federal	- 0 -	$382,000

Colorado River Basin Salinity Control Project
Grand Valley Unit, Title II
Colorado

Location This project is located in western Colorado.

Description The project provides for operation and maintenance of portions of the West End Government Highline Canal and completed laterals for salinity control purposes. Project acquired mitigation land for fish and wildlife purposes will also be administered.

Work continuing The request of $657,000 includes $250,000 to reimburse the Grand Valley Water Users Association and $164,000 for the Colorado Division of Wildlife for operation and maintenance costs relating to salinity control and mitigation measures along with $243,000 for Reclamation supervison and land resources management activities.

Changes from FY 1996 The change is due to decreased reimbursements to the Grand Valley Water Users Association for planned work; decreased operation and maintenance costs relating to salinity control and mitigation measures for the Colorado Division of Wildlife, and a decrease in routine operation and maintenance and land resources management activities.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$733,000	$657,000

Colorado River Basin Salinity Control Project
Lower Gunnison Basin Unit, Title II
Colorado

Location This project is located in western Colorado.

Description The project provides for operation and maintenance of portions of the Tri-County System Improvements for salinity control purposes.

Work continuing The request of $352,000 provides payment to three water user entities which offsets the cost differences of delivering winter water through a rural domestic water system in lieu of delivering water through the water users' distribution systems (an open canal system). Water which runs through the canals during the non-irrigation season seeps from canals and picks up salt as it returns to the river. Reclamation has contracted with the Uncompahgre Valley Water Users to purchase 825 acre-feet of treated municipal and industrial water to replace the winter water in the open canal system. By using the domestic water system to deliver water to livestock instead of the open canal, salinity in the Colorado River is reduced.

Changes from FY 1996 The change is due to the decreased operation and maintenance payments to the Uncompahgre Valley Water Users.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$432,000	$352,000

Colorado River Basin Salinity Control Project
Paradox Valley Unit, Title II
Colorado

Location This project is located in southwestern Colorado.

Description The project provides for the operation and maintenance of a brine-well field, treatment facilities, brine injection facility, associated pipelines and roads, and seismic network. The purpose of this program is salinity control. Benefits will be derived by users of Colorado River water both within and outside the Colorado River Basin. By improving the quality of water, savings would be associated with municipal and industrial use primarily from decreased costs for water treatment, reduced pipe corrosion and appliance wear, decreased use of soaps and detergents, improved palatability of drinking water, and greater potential for water reuse. For irrigators, the salinity reduction would result in increased crop yields, more uniform crop patterns, decreased leaching and drainage requirements, and decreased management costs.

Work continuing The request includes $2,823,000 for preventive maintenance, electrical operation and maintenance, pump rebuilding, and operation of hydro and seismic equipment operated by the U.S. Geological Survey.

Work starting in FY 1997 In addition, the request includes $51,000 for replacement items for data transcriber equipment and equipment to perform preventive maintenance.

Changes from FY 1996 The FY 1997 request reflects a minimal increase in operating costs for ongoing operation and maintenance activities.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,850,000	$2,874,000

Columbia Basin Project
Washington

Location This project is located in central Washington.

Description The project provides hydroelectric power, irrigation, flood control, navigation, recreation, fish and wildlife benefits, and river regulation for fish flows. The project consists of three storage dams and reservoirs; three Grand Coulee powerplants and one pump/generating plant with a combined generating capacity of 6,494,000 kilowatts and an annual generation of about 21,000,000,000 kWh; and their associated switchyards, transmission lines, and feeder canal. There are 27 generators, six pump/generators, and six pumping units on the project. Water distribution systems and other storage facilities are operated by the water users.

Work continuing The request includes $35,600,000 for continuing the operation and maintenance (O&M) functions of the project including expenses such as personnel and indirect costs, materials and supplies, and service contracts. Other ongoing work is the O&M of the Leavenworth, Entiat, and Winthrop National Fish Hatchery Complex for mitigating the impacts of Grand Coulee Dam on the anadromous fishery; downstream stabilization monitoring; noxious weed control; and operation of the tourist facility.

Also included in this amount is $1,901,000 for various continuing replacement items such as the Left Powerplant Fire Protection Modifications to meet Life Safety Code requirements.

Work starting in FY 1997 The request includes $257,000 for replacement of the thrust bearing springs on Units G22-24.

In addition, $250,000 for extraordinary maintenance for rehabilitating various features of the Leavenworth Fish Hatchery.

The request also includes $1,082,000 in new activities which includes $470,000 for National Historic Preservation Act compliance; $250,000 for cultural resource activities identified in the Intertie Development agreement; $200,000 for Geographic Information System (GIS) data gathering for Reclamation lands and contract administration; and $162,000 for activities related to elimination of unauthorized use of water.

Changes from FY 1996 The change primarily reflects new work starting in FY 1997 partially offset by a decrease in continuing replacement items including the left powerplant fire protection modifications.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$38,061,000	$39,090,000
Other Agency	$ 5,920,000	$ 5,403,000
Non-Federal	$ 1,777,000	$ 1,753,000

Crooked River Project
Oregon

Location This project is located in central Oregon.

Description The project consists of the multipurpose Ochoco Dam and Reservoir and Arthur R. Bowman Dam and Prineville Reservoir. These facilities are operated under contract by the Ochoco Irrigation District. Reclamation provides maintenance of the hydromet system for flood control forecasting and recreation management costs of the areas at Prineville Reservoir.

Work Continuing The request includes $270,000 for continuing operation and maintenance functions of the project including expenses such as personnel costs, supplies and materials, flood control forecasting, recreation management, and miscellaneous replacements.

Work starting in FY 1997 The request also includes $60,000 for activities related to unauthorized use of water, $19,000 for repairs and replacement of dam instrumentation necessary to monitor safe dam performance, and $19,000 in extraordinary maintenance for preliminary planning and design costs associated with revegetation of unauthorized roads and trails.

Changes from FY 1996 The change is due to increases in new work starting, flood control forecasting due to reallocation of central hydromet costs, and cyclical spillway examination at A.R. Bowman Dam.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$207,000	$368,000

Dakotas Area Projects
North Dakota, South Dakota

Location This program is located throughout the States of North and South Dakota

Description The Dakotas Area includes the Heart Butte, Dickinson, and Jamestown Units of the Pick-Sloan Missouri Basin Program in North Dakota, which consist of three storage reservoirs with benefits of irrigation, municipal and industrial water, fish and wildlife, recreation, and flood control. Also included is the Garrison Diversion Unit, Pick-Sloan Missouri Basin Program municipal and industrial water system, which consists of rural water systems on three Indian reservations. In addition, the Dakotas Area includes the Angostura, Keyhole, Pactola, and Shadehill Units of the Pick-Sloan Missouri Basin Program in South Dakota which consist of four dams and reservoirs primarily for storage of irrigation water. Another project included is the Mni Wiconi Project in South Dakota which consists of municipal, rural, and industrial water systems for the residents of the Pine Ridge, Rosebud, and Lower Brule Indian Reservations and nearby South Dakota residents. Also included are operation and maintenance funding requirements for cultural resources activities, recreation management, project headquarters expenses, and water quality management activities. Benefits include irrigation, municipal and industrial water, flood control, fish and wildlife, and recreation facilities.

Work continuing The request includes $7,044,000 for continuing operation and maintenance expenses for the projects, such as personnel, supplies and materials, minor contracts, and other related activities, all of which are required for continued delivery of project benefits. Funds for continuing replacements, additions, and extraordinary maintenance items also are included.

Work starting in FY 1997 The request includes $300,000 for the Geographic Information System, and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.

Changes from FY 1996 The Echo Point intake on the Mni Wiconi Project will be completed and, beginning in FY 1997, minimally operated until the water treatment plant is completed. The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$6,812,000	$7,344,000

Deschutes Project
Oregon

Location This project is located in central Oregon.

Description This project consists of Reclamation's effort to provide continued flood control forecasting and recreation management of the areas on Reclamation lands at Haystack Reservoir. All remaining project facilities are operated by the water users.

Work continuing The request includes $107,000 for continuing operation and maintenance expenses including personnel costs, contracted services for hydromet maintenance, central hydromet support, management of recreation areas, and miscellaneous equipment replacements.

Work starting in FY 1997 The request also includes funding for activities related to unauthorized use of water and repairs and replacement of dam instrumentation necessary to monitor safe dam performance.

Changes from FY 1996 The change reflects an increase for central hydromet operations due to reallocation of costs based on the number of stations per project, new work starting, and an increase in recreation management by the Forest Service.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$84,000	$266,000

Dolores Project
Colorado

Location The project is located in southwestern Colorado.

Description The Dolores project is a multipurpose project. Water is developed from McPhee Dam for irrigation, municipal and industrial use, power, salinity control, recreation, and fish and wildlife purposes for both Indian and non-Indian use. The project consists of McPhee Dam and Reservoir, Great Cut Dike, six pumping plants, 94 miles of canals and tunnels, 102 miles of lateral pipe systems, and the McPhee and Towaoc Powerplants. Service is provided to the northwest Dove Creek area, the central Montezuma Valley area, and south to the Towaoc area on the Ute Mountain Ute Indian Reservation.

Work continuing The request includes $318,000 for personnel costs, materials and supplies, fish and wildlife, land resources management, and salinity activities, and for payments to the Dolores Water Conservancy District for the cost of operating the Ute Mountain Ute Tribe portion of the facilities and for unused water pursuant to Public Law 100-585.

Upper Colorado River Basin Fund revenues of $416,000 will provide for ongoing operation and maintenance of the powerplants.

Work starting in FY 1997 Contracts in the amount of $48,000 will be awarded for GIS work.

Changes from FY 1996 Changes are due to a new contract award for GIS work as well as a decrease in general operating costs for salinity work and in operating costs to provide management supervision, preventive maintenance, and general operating costs to operate and maintain Towaoc and McPhee Powerplants.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$511,000	$366,000
UCRBF Revenues	422,000	416,000

Eastern Colorado Area Projects
Colorado

Location These projects are located in eastern Colorado.

Description The Eastern Colorado Projects, incorporating the Colorado-Big Thompson Project and the Fryingpan-Arkansas Project, divert water from the western slope of the Rocky Mountains to the eastern slope. The Colorado-Big Thompson Project diverts approximately 260,000 acre-feet of water to project lands. The Northern Colorado Water Conservancy District apportions the water used for irrigation to more than 120 ditches and 60 reservoirs. Eleven communities receive municipal and industrial water and the electrical energy produced from six powerplants with the installed capacity of 188,350 kW. The Fryingpan-Arkansas Project consists of 6 dams and reservoirs, 16 diversion structures and the Mt. Elbert pumped-storage powerplant and switchyard which has an installed capacity of 206,000 kW. The Fryingpan-Arkansas Project diverts approximately 69,000 acre-feet of water annually for supplemental irrigation service for a 280,600-acre service area. Also included is the operation and maintenance of the Leadville Mine Drainage Tunnel treatment plant which prevents heavy metals from entering the headwaters of the Arkansas River. Cultural resource and recreation management activities are included.

Work continuing This request includes $11,101,000 for continuing operation and maintenance expenses such as personnel costs, materials and supplies, administrative expenses, and payments to the Northern Colorado Water Conservancy District for Reclamation's share of operation and maintenance expenses of facilities transferred to the District. This amount is for continued work on the replacement of a supervisory control and the required software needed to operate and monitor the projects, and for cultural resource, recreation, and land management activities.

Work starting in FY 1997 The request includes $350,000 for the Geographic Information System, and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.

Changes from FY 1996 The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$11,611,000	$11,451,000
Non-Federal	602,000	472,000

Great Plains Area Projects

Colorado, Kansas, Montana, Nebraska, North Dakota,
Oklahoma, South Dakota, Texas, Wyoming

Location This program is located throughout the States of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, eastern Montana, eastern Wyoming, eastern Colorado, and eastern Texas.

Description The Great Plains Area includes the operation and maintenance activities associated with overall management of Regional O&M activities, including water rights, water management, water marketing, title transfer, recreation management and cultural resources.

Work continuing The request includes costs for continuing operation and maintenance expenses associated with overall management of the Regional O&M program.

Work starting in FY 1997 The request includes $814,000 for the Geographic Information System, and for Reclamation's initiative to seek cost sharing partners and improve relationships with state and local entities.

Changes from FY 1996 The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,570,000	$2,384,000

Hungry Horse Project
Montana

Location The project is located in northwestern Montana.

Description The project provides hydroelectric power, flood control, fish and wildlife, and recreation benefits. The project consists of the storage dam and reservoir, the powerplant with a generating capacity of 429,000 kilowatts and annual generation of 948,600,000 kWh, and its associated switchyard and transmission lines.

Work continuing The request includes $1,973,000 for continuing operation and maintenance functions of the dam and reservoir including expenses such as personnel, supplies and materials, services, and other related activities, all of which are required for continued delivery of project benefits. Included in this amount is $76,000 to complete replacement of road culverts around Hungry Horse Reservoir to facilitate removal of barriers to fish passages and $5,000 for completing removal of hazardous waste materials at the powerplant.

Work starting in FY 1997 The request includes $102,000 for replacements which includes $90,000 for a hydropneumatic water tank needed to maintain domestic water for the Visitor Center and dam; and $12,000 for updating the control room recorders for the generators and power system.

In addition, extraordinary maintenance totals $40,000 for recabling the powerplant bridge cranes to maintain proper safety factors.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,118,000	$2,115,000
Other Agency	$3,830,000	$1,625,000

Indian Water Rights Settlement Projects
Arizona

Location This project is located in the Ak Chin Indian Community, in Pinal County, Arizona, and the San Xavier and Schuk Toak Districts of the Tohono O'odham Nation (Nation) which are both located in Pima County, Arizona.

Description The Ak Chin Indian Water Rights Settlement Act (Public Law 98-530, October 19, 1984) requires the Government to provide the Ak Chin Indian Community with 85,000 acre-feet of water needed to irrigate 16,000 acres of farm land annually. The Act also requires the Government to provide funds for the operation and maintenance costs associated with the water delivery to the southeast corner of the reservation as required by the Act and at no cost to the Community.

The Southern Arizona Water Rights Settlement Act (Title III, Public Law 97-293, October 12, 1982), provides the Nation with 66,000 acre-feet of water annually. The Schuk Toak New Farms allocation is 16,000 acre-feet annually and the San Xavier Farms allocation is 50,000 acre-feet annually. This water will be conveyed 320 miles through Central Arizona Project facilities to the Nation. The Nation may also lease its water to other water users. The Federal Government remains responsible for delivery of this leased water at no expense to the Nation.

Work continuing The program includes $12,395,000 for continuing the operation and maintenance functions associated with the delivery of Central Arizona Project water to the Ak Chin Indian Community ($7,073,000) and to the Nation ($5,322,000).

Changes from FY 1996 The change from the FY 1996 program is based on an anticipated increase in the per acre-foot cost of water deliveries to the Ak Chin Indians. This increase is partially offset by decreases in the contracted O&M costs for Santa Rosa Canal and Reclamation support.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$6,391,000	$7,073,000
Other Federal agencies*	5,082,000	5,322,000

* These funds will be made available from a special O&M fund established by the Southern Arizona Water Rights Settlement Act. The Bureau of Indian Affairs is responsible for administration of this fund.

Klamath Project
California, Oregon

Location This project is located in north-central California and in south-central Oregon.

Description The Klamath Project facilities include three storage dams, four diversion reservoirs, 37 pumping plants, 185 miles of canals, and over 728 miles of drains which provide irrigation water to approximately 225,000 acres and reduce flows into the reclaimed portions of Tule Lake and the restricted Tule Lake sumps in the Tule Lake National Wildlife Refuge. In addition, the project provides recreational opportunities for day-use visitors.

The Link River Dam is operated by the Pacific Power and Light Company in accordance with project needs. The Anderson-Rose Dam is operated by the Tule Lake Irrigation District, and the Langell Valley Irrigation District operates the Malone and Miller Diversion Dams. The canals and pumping plants are operated by the various irrigation districts.

Work continuing The request of $2,030,000 includes $808,000 for recurring operation and maintenance costs for maintenance of buildings and equipment which are necessary for management of public lands, administration of farm and grazing leases, water rights activities, recreation management, and hazardous materials management activities. Also included, $1,222,000 for work on the Klamath Basin Ecosystem Restoration Program and coordination of measures to protect endangered species on the Klamath Project.

Changes from FY 1996 The change reflects an increase in routine operation and maintenance activities.

Summarized Financial Data

	FY 1996	FY1997
Reclamation	$1,824,000	$2,030,000
Non-Federal	135,000	135,000

Middle Rio Grande Project
New Mexico

Location This project is located in central New Mexico.

Description The project consists of El Vado Dam and Reservoir, 202 miles of the Rio Grande channel maintenance, maintenance through 9 Native American Pueblos, and operation and maintenance of the 57-mile-long, low-flow channel. The irrigation and drainage features of the project are operated, maintained, and funded by the Middle Rio Grande Conservancy District and include three diversion dams, 202 miles of canals, 580 miles of laterals, and 405 miles of drains.

Work continuing The request includes $8,290,000 for continuing operation and maintenance expenses such as personnel costs, supplies and materials, and other recurring expenses. Ongoing work includes $800,000 for riprap bank protection; $400,000 for San Marcial Reach rehabilitation; $310,000 for river data collection; and $230,000 for survey services work.

Work starting in FY 1997 The request includes $1,090,000, for mowing and road grading, equipment repairs, Denver Technical Center service agreement, gaging stations, aerial photography, water management conservation activities, and geographic information systems.

Changes from FY 1996 The change is primarily due to the new work starting in FY 1997 as described above.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$8,580,000	$9,380,000
Non-Federal	1,264,000	1,278,000

Minidoka Area Project
Idaho, Wyoming

Location The project is located in eastern Idaho and a small portion of western Wyoming.

Description The project provides hydroelectric power, irrigation water for about 1,200,000 acres, flood control, recreation, and fish and wildlife benefits. The project consists of eight multipurpose dams and reservoirs, two wildlife mitigation areas, recreation areas on four reservoirs, and two powerplants with a combined generating capacity of 204,400 kilowatts and annual generation of about 793,400,000 kWh and their associated switchyards and transmission lines. Unit 6 at Minidoka Powerplant has been inoperable since 1985 because of a cracked turbine runner. Water delivery systems are operated by the water users.

Work continuing The request includes $9,374,000 for continuing operation and maintenance of the project including expenses such as personnel costs, materials and supplies, and other related activities which are required for continued delivery of project benefits. Also included in this amount is $1,450,000 for administrative support and technical review of the Minidoka Powerplant rebuild; $183,000 for continuation of the American Falls erosion control program; $145,000 to continue hazardous waste inventories, monitoring and disposal of hazardous materials project-wide; $40,000 to continue the upgrade of the project radio system; and $22,000 for continuing miscellaneous replacements and addition items.

Work starting in FY 1997 The request includes $325,000 for replacements and additions: $185,000 for remote terminal unit at Palisades Powerplant; $100,000 for replacement of vehicles and utility trucks for use at Ririe Dam and Reservoir, Minidoka Dam and Reservoir, and project-wide; $20,000 for miscellaneous electronic test equipment at Palisades Powerplant; and $20,000 for Geographic Information System (GIS) equipment and software.

In addition, extraordinary maintenance totals $45,000 of which $33,000 is for the American Falls conduit and gate repair; and $12,000 to repair cavitation and modification of gate frames at Jackson Lake Dam and Reservoir.

The request also includes $909,000 for new activities of which $236,000 is for initiation of a water conservation program, $225,000 for Geographic Information System (GIS) data gathering for Reclamation lands and contract administration; $118,000 for initiation of a resource management customer service program which will provide direct customer service regarding resource management issues resulting from project operations; $90,000 for repair and replacement of dam equipment critical to monitoring safe dam performance; $75,000 for the Teton mitigation review which will review the status of the mitigation and management of affected lands; $75,000 for Law Enforcement Services at American Falls; $50,000 for the Shoshone-Bannock Indian trust responsibility which will protect and begin to assess a sacred Indian site below American Falls Dam; and $40,000 for the Teton seismic network which will provide additional earthquake monitoring as it relates to Teton Dam.

Changes from
FY 1996 The change primarily reflects new work starting in FY 1997 and increases in routine operating expense.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$ 8,802,000	$10,653,000
Other Agency	8,021,000	1,165,000
Non-Federal	1,436,000	1,601,000

Montana Area Projects
Montana

Location This program is located in eastern Montana.

Description The Montana Area includes the Milk River Project and the following units of the Pick-Sloan Missouri Basin Program: the Canyon Ferry Unit, Yellowtail Unit, East Bench Unit, Helena Valley Unit, and Lower Marias Unit. These projects consist of 8 dams and reservoirs, 2 powerplants, and 1 pumping plant. Also included are funding requirements for water quality, water management, cultural resource, and recreation management activities. Benefits include power generation from 2 powerplants (with a total generating capacity of 300,000 kW), irrigation, municipal and industrial water, flood control, fish and wildlife, and recreation facilities.

Work continuing The request includes $7,448,000 for continuing operation and maintenance expenses for the projects, such as personnel, supplies and materials, minor contracts, and other related activities, all of which are required for continued delivery of project benefits. Funds for continuing replacements, additions, and extraordinary maintenance items also are included.

Work starting in FY 1997 In addition, $200,000 is requested for new extraordinary maintenance items. This includes road maintenance at Canyon Ferry Reservoir. The request also includes $350,000 for Geographical Information System, and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.

Changes from FY 1996 The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$8,732,000	$7.998,000
Non-Federal	$570,000	$397,000

Nebraska/Kansas Area Projects

Kansas, Nebraska

Location This program is located throughout the States of Nebraska and Kansas.

Description The Nebraska/Kansas Area includes the Frenchman-Cambridge Division, Bostwick Division, Cedar Bluff Unit, Kirwin Unit, Webster Unit, Almena Unit, and Glen Elder Unit, of the Pick-Sloan Missouri Basin Program. Facilities operated and maintained include 11 dams and reservoirs. Also included are operation and maintenance funding requirements for cultural resources activities, and recreation management. Benefits include irrigation, flood control, fish and wildlife, and recreation.

Work continuing The request includes $3,243,000 for continuing operation and maintenance expenses for the projects, including personnel, supplies and materials, minor contracts, and other related activities, all of which are required for continued delivery of project benefits.

Work starting in FY 1997 The request includes $300,000 for the Geographic Information System, and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.

Changes from FY 1996 The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$3,032,000	$3,543,000
Other Agency	130,000	130,000

Oklahoma/Texas Area Projects
Kansas, Oklahoma, Texas

Location	The projects are located in the States of Kansas, Oklahoma, and Texas.
Description	The area consists of one project in Kansas, six projects in Oklahoma, and five projects in Texas. The projects include McGee Creek, W.C. Austin, Washita Basin, Arbuckle, Canadian River, Colorado River, Mountain Park, Palmetto Bend, Norman, Nueces River, Wichita, and San Angelo. The projects provide 2,060,325 acre-feet of flood control storage in 13 dams and reservoirs, recreation, and fish and wildlife benefits.
Work continuing	The request includes $2,290,000 for continuing operation and maintenance on the projects. This amount includes costs for administrative expenses, and for reimbursement to the operating entities for operation and maintenance costs allocated to flood control, fish and wildlife, and recreation purposes. Includes cultural resource and recreation management activities.
Work starting in FY 1997	The request also includes $300,000 for the Geographic Information System and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.
Changes from FY 1996	The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,421,000	$2,709,000

Orland Project
California

Location This project is located in north-central California.

Description The Orland Project provides full irrigation service to approximately 20,000 acres and recreational benefits. Project irrigation works are operated and maintained by the Orland Unit Water Users Association. Reclamation operates and maintains recreational facilities at Stony Gorge and East Park Reservoirs.

Work continuing The request provides $422,000 for continued operation and maintenance of recreation facilities, $30,000 for ongoing recreation area road maintenance and $17,000 for replacement of picnic tables.

Work starting in FY 1997 Also, included in the request is $101,000 for handicap access activities at Stony Gorge.

Changes from FY 1996 The change includes an increase in routine operation and maintenance activities from a minimum effort to a more adequate level to accommodate a significantly increased use of the recreational facilities. This increase is partially offset by a decrease in funding for replacement, addition, and extraordinary maintenance items.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$562,000	$570,000

Parker-Davis Project
Arizona, California, Nevada

Location	This project is located in western Arizona, southern California, and southern Nevada.
Description	The Parker-Davis Project consists of Parker and Davis Dams, Lakes Havasu and Mohave, and two powerplants. The lakes have a combined storage capacity of 2,466,300 acre-feet and provide flood control, recreation, and fish and wildlife benefits. The two powerplants, with an annual power generation of approximately 2,750,000,000 kWh of low-cost, renewable hydropower, serve various sectors of the southwest.
Work continuing	The request includes $2,050,000 for operation and maintenance expenses required to continue providing hydroelectric power and water deliveries from the project. Also included are continuing replacement and addition items consisting of replacement of generator heat exchangers, generator cooling water lines, and modifications to powerplants to meet life safety code requirements.
Work starting in FY 1997	The request includes $273,000 for miscellaneous minor replacements, additions, and extraordinary maintenance items. Work involves painting a gantry crane, replacing evaporative coolers, and purchasing a vibration monitoring system for generators and turbines.
Changes from FY 1996	The FY 1997 request assumes increased cost-sharing from power customers.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$4,101,000	$2,323,000
Non-Federal	1,282,000	3,584,000

Pecos River Basin Water Salvage Project
New Mexico, Texas

Location This project is located in southeastern New Mexico and western Texas.

Description The project consists of a program to reduce the loss of water in the Pecos River Basin between Sumner Dam on the Pecos River in New Mexico and Girvin, Texas, by maintaining 53,800 acres of previously cleared land. This ongoing operation and maintenance program involves uprooting deep-rooted Salt Cedar plants that consume water from the shallow water table or the layer of soil above it.

Work continuing The request of $380,000 is for continuing operation and maintenance expenses such as personnel costs, supplies and materials, and miscellaneous tools and equipment replacements.

Changes from FY 1996 The decrease is due to reduced costs of land resource management expenses.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$386,000	$380,000
Non-Federal	100,000	100,000

Provo River Project
Utah

Location The project is located in central Utah.

Description The program provides for continued operation and maintenance (O&M) of the Deer Creek Powerplant and land resources management. The benefits of the Provo River Project are irrigation, flood control, municipal and industrial water, power, and recreation. The Deer Creek Powerplant has two generating units with a capacity of 4,950 kilowatts. The powerplant is operated by the Provo River Water Users under a cost reimbursable contract.

Work continuing The request includes $182,000 for contract preparation administration and oversight of powerplant maintenance.

Work starting in FY 1997 A contract in the amount of $45,000 will be awarded for retrofitting circuit breakers.

Changes from FY 1996 The increase from FY 1996 is due to the new contract award for retrofitting circuit breakers and a minimum increase in ongoing work for land resource management activities.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$210,000	$227,000

Rio Grande Project
New Mexico, Texas

Location This project is located in southwestern New Mexico and western Texas.

Description The project provides for continued operation and maintenance (O&M) of two storage dams and reservoirs, a hydroelectric plant with a generating capacity of 24,300 kilowatts and annual generation of 87,000,000 kWh, and operation of six diversion dams. Other activities include administration of Reclamation's responsibilities under the international water treaty with Mexico, land and recreation management, weed control activities, and public safety and access activities. Benefits of the project include irrigation, flood control, recreation, and power. Transfer of title of irrigation and drainage system facilities was made in January 1996. The water users maintain the six diversion dams.

Work continuing The request includes $2,850,000 for continuing O&M expenses such as personnel costs, supplies and materials, and miscellaneous tools and equipment replacements.

Work starting in FY 1997 The request also includes $438,000 which includes $153,000 for water management and conservation activities; $150,000 for the Resource Management Plan; $81,000 for a cost sharing contract with the New Mexico and Texas State Parks to continue work on the recreation sites; $30,000 for computer equipment at the Elephant Butte Powerplant, and $24,000 for soil and moisture conservation activities.

Changes from FY 1996 The change is due to initiation of water management and conservation activities, increased land resource management activities, and an increase in powerplant O&M expenses; partially offset by decreases in recreation management activities, soil and moisture conservation activities; and a net decrease in overall replacements, additions, and extraordinary maintenance.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,935,000	$3,288,000
Non-Federal	332,000	388,000

Rogue River Basin Project, Talent Division
Oregon

Location The project is located in southwestern Oregon.

Description The project consists of the Green Springs Powerplant with a generating capacity of 16,000 kilowatts and annual generation of about 70,000,000 kWh and the Federal share of the operation and maintenance (O&M) of the joint use storage and canal facilities consisting of seven dams and reservoirs and associated canal works operated by the Talent Irrigation District. The project also provides for the O&M of the hydromet system for water and flood control forecasting.

Work continuing The request includes $490,000 for continuing O&M functions of the project including expenses such as personnel costs; supplies and materials; and payment to the operating entity for flood control and fish and wildlife costs.

Work starting in FY 1997 Also requested is $35,000 for replacements which includes $25,000 for the replacement of the station battery and chargers; and $10,000 for replacement of kWh watthour meters. The existing watthour meters and battery chargers are over 30 years old, are maintenance problems, and spare parts are no longer available.

In addition, extraordinary maintenance totals $25,000 for replacement of high pressure piping which is deteriorating and valving that is difficult to operate and a safety hazard.

The request also includes $194,000 for water management conservation activities and for repairs and replacement of dam instrumentation necessary to monitor safe dam performance.

Changes from FY 1996 The change reflects an increase for new work identified above, cyclical review of joint-use facilities, an increase in flood control forecasting due to reallocation of central hydromet costs; and minor increases in routine O&M expense.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$438,000	$744,000

San Juan-Chama Project
Colorado, New Mexico

Location This project is located in southcentral Colorado and northcentral New Mexico.

Description This project consists of two storage dams and reservoirs, 3 diversion dams, 3 tunnel systems with a total length of 26 miles and 15 miles of open channel. The project provides an annual diversion of about 110,000 acre-feet of water from the upper tributaries of the San Juan River for use in the Rio Grande River Basin of New Mexico. Municipal and industrial water is provided to nine entities. Supplemental irrigation water is also provided to 89,711 acres in the Middle Rio Grande Conservancy District and 2,768 acres in the Pojoaque Valley Irrigation District. Water users fund 90 percent of expenses and Reclamation funds the remaining 10 percent for nonreimbursable functions.

Work continuing The request includes $303,000 for continuing operation and maintenance expenses such as tunnel maintenance personnel costs; supplies and materials; equipment replacements, additions, and repairs; and land resource management activities.

Work starting in FY 1997 The request also includes $25,000 for the Oso Diversion Dam Trashrack Modification.

Summarized Financial Data

	FY 1996	FY1997
Reclamation	$327,000	$328,000
Non-Federal	1,046,000	1,434,000

San Luis Valley Project, Closed Basin Division
Colorado

Location This project is located in southcentral Colorado.

Description The project provides for operation and maintenance of 170 salvage wells, 82 observation wells, 42 miles of main canal, 115 miles of pipeline laterals, 237 miles of access roads, 169 miles of transmission lines, 22 underdrain manholes, and 16 tree area turnouts. The purposes of the project are water salvage, fish and wildlife benefits, and recreation. The Federal role is to make water available for fulfilling the United States obligation to Mexico in accordance with the treaty dated May 21, 1906, and to assist Colorado in meeting its obligation to the Rio Grande Compact. The project also provides for the delivery of water to the Alamosa National Wildlife Refuge, Blanca Wildlife Habitat Area, stabilization of San Luis Lake, and Russell Lakes Wildlife Management Area.

Work continuing The request of $3,250,000 provides for continued operation and maintenance of the Closed Basin facilities which includes power, water quality, ground water monitoring, and mitigation costs. Civil maintenance activities continue to be contracted to the Rio Grande Water Conservation District under a master contract.

Changes from FY 1996 The increase is due to increased water salvage costs in order to meet water salvage contract goals, partially offset by decreased costs in project development, replacements and additions, and water quality laboratory costs.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$3,195,000	$3,250,000

San Luis Valley Project, Conejos Division
Colorado

Location This project is located in south-central Colorado.

Description The project consists of Platoro Dam and Reservoir which provides irrigation, flood control and recreation benefits, and through regulation provides a supplemental water supply for 81,000 acres of irrigated land in the Conejos Water Conservancy District. Platoro Dam has joint-use storage that provides flood control by storing floodwaters of the Conejos River for release when normal flows fall below irrigation requirements. Project facilities are operated and maintained by the Conejos Water Conservancy District.

Work continuing Public Law 102-575, Title 23, mandated that responsibility for operation, maintenance, and replacements of the Conejos Division be turned over to the Conejos Water Conservancy District. However, funds are required for administrative costs, as title to the facilities remains with the United States.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,000	$3,000
Non-Federal	8,000	7,000

Solano Project
California

Location This project is located in northeastern California.

Description Principal features and facilities include two storage dams and reservoirs, one diversion dam, 32.3 miles of canals, 3.4 miles of pipelines, and the Lake Berryessa Recreation Area. The project was designed to irrigate approximately 96,000 acres of land. The project also furnishes municipal and industrial water to the principal cities of Solano County. Recreational opportunities are available at seven resorts operated by private entities. The canals and pipelines are operated and maintained by the Solano Irrigation District with funding provided by Reclamation. All other facilities are operated and maintained by Reclamation.

Work continuing The request of $1,851,000 includes $1,401,000 for recurring expenses of operation, maintenance, and management of the recreational facilities at Lake Berryessa. Also included is $173,000 for operation and maintenance of Monticello Dam and the Putah Diversion Dam by the Solano Irrigation District. An amount of $105,000 is included for water rights, resource management, and land management activities.

Work starting in FY 1997 The request includes the following replacement items; $50,000 for a tractor, $45,000 for a patrol boat, and $36,000 for an area service boat. Also $21,000 for Life Safety Code Corrections and $20,000 for implementing the Geographic Information system and related data gathering technology.

Changes from FY 1996 The change is primarily due to the need for Life Safety Code Corrections and for implementing the geographic information system; partially offset by a decrease in replacement, addition, and extraordinary maintenance items.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,732,000	$1,851,000

Tualatin Project
Oregon

Location This project is located in northwest Oregon.

Description The project provides irrigation, municipal and industrial water, flood control, fish and wildlife, recreation, and water quality control benefits. The Federal share of the operation and maintenance (O&M) costs of Scoggins Dam and Henry Hagg Lake is performed under contract by the Tualatin Valley Irrigation District.

Work continuing The request includes $85,000 for continuing O&M expenses including personnel costs, contracted services for hydromet maintenance, and payment to the Tualatin Valley Irrigation District for O&M of Scoggins Dam.

Work starting in FY 1997 The request includes $22,000 for new work activities including $12,000 for repair and replacement of dam instrumentation necessary to monitor safe dam performance; and $10,000 for activities related to elimination of unauthorized use of water.

Changes from FY 1996 The change reflects an increase for central hydromet operations due to reallocation of costs based on the number of stations per project and new work identified above.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$81,000	$107,000
Non-Federal	121,000	128,000

Umatilla Project
Oregon

Location This project is located in north-central Oregon.

Description The project provides irrigation, flood control, fish and wildlife, and recreation benefits. The project consists of the McKay Dam and Reservoir which is regulated for irrigation, flood control, fish flow releases, and water exchange facilities which include the West Extension Irrigation District (WEID) pumping plant, the Columbia River pumping plant, and the Columbia-Cold Springs Canal.

Work continuing The request includes $636,000 for continuing operation and maintenance activities including personnel costs, supplies and materials, minor contracts, services, monitoring costs associated with the fish passage program, continued activities related to unauthorized use of water, and other related activities necessary for the continued delivery of project benefits.

Work starting in FY 1997 The request includes $241,000 for new work activities including $212,000 for water management conservation and activities related to elimination of unauthorized use of water; and $29,000 for repairs and replacement of dam instrumentation necessary to monitor safe dam performance.

Changes from FY 1996 The change is due to increased operation and maintenance costs associated with additional water exchange facilities being transferred to operation and maintenance status.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$705,000	$ 877,000
Other Agency	391,000	532,000
Non-Federal	63,000	68,000

Upper Colorado Area Projects
Colorado, Utah

Location The projects are located throughout Colorado and Utah.

Description The program provides continued payments to operating entities for nonreimbursable costs of operation and maintenance of the following projects: Bostwick Park, Dallas Creek, Paonia, Uncompahgre, Weber Basin, and the Bonneville and Jensen Units of the Central Utah Project. The program includes fish and wildlife enhancements, flood control, land resources management, public safety and access, soil and moisture conservation, cultural resources, salinity control, and recreation.

Work continuing The request includes $1,805,000 for continuing operation and maintenance expenses such as personnel costs, materials and supplies, other contracts and services, and ongoing resource management plans and early warning systems.

Work starting in FY 1997 The request includes $1,535,000 for contracts and services for geographic information systems, administration of repayment contracts and operational studies for water marketing purposes, administration of integrated pest management programs, the initiation of early warning systems at Paonia and Silver Jack Dams, oversight of coordination meetings, writing, implementation and tracking of operation plans, and providing guidance to water users to achieve ecosystem management goals.

Changes from FY 1996 The change reflects increases for new work starting in FY 1997 as described above, offset by the completion of recreation rehabilitation at Rockport and East Canyon.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,336,000	$3,340,000

Washoe Project
California, Nevada

Location	This project is located in west-central Nevada and east-central California.
Description	The Washoe Project was designed to improve the regulation of runoff of the Truckee River system and to provide supplemental irrigation and drainage for presently irrigated lands, as well as water for municipal and industrial use, flood protection, fish and wildlife benefits, and recreation. Flows are also regulated for such purposes as power production and fishery improvement. Washoe Project facilities include two storage dams and reservoirs, one diversion dam, one powerplant with a generating capacity of 3,650 kilowatts and annual generation of 6.2 gigawatt-hours, and a 3-mile-long fishway located at Pyramid Lake. As a result of threatened and endangered species, the principal storage reservoir, Stampede Dam, is being operated to meet flood control and instream flow requirements to protect fish in the lower Truckee River. Authority to construct facilities of the Watasheamu Division has been deauthorized by Public Law 101-618, Section 205(c).
Work continuing	The request of $1,104,000 is for continued operation and maintenance activities such as the Truckee-Carson Settlement Environmental Impact Statement (EIS); operation and routine maintenance of storage, diversion and power facilities; hydrologic modeling; hazardous materials management activities; and management of recreation and fish and wildlife resources.
Changes from FY 1996	The change reflects decreases in the Truckee-Carson Settlement Environmental Impact Statement and hydrologic modeling which are partially offset by increases in the hazardous materials management program.

Summarized Financial Data

	FY1996	FY1997
Reclamation	$1,500,000	$1,104,000

Wyoming Area Projects
Wyoming

Location This program is located in eastern Wyoming.

Description The Wyoming Area consists of the North Platte Project; Kendrick Project; Shoshone Project; and the Kortes Unit, Glendo Unit, Buffalo Bill Dam and Reservoir, Boysen Unit, Owl Creek Unit, and Riverton Unit of the Pick-Sloan Missouri Basin Program. These projects consist of 9 dams and reservoirs, 11 powerplants, and the Shoshone Canyon conduit. The facilities are operated for the benefit of irrigation, hydroelectric power, flood control, recreation, and fish and wildlife. Also included are operation and maintenance funding requirements for cultural resources activities, recreation management, and water quality management activities. Benefits include power generation from 11 powerplants (with a total generating capacity of 292,000 kw), irrigation, flood control, fish and wildlife, and recreation facilities.

Work continuing The request includes $13,439,000 for continuing operation and maintenance expenses for the projects, such as personnel, supplies and materials, minor contracts, and other related activities, all of which are required for continued delivery of project benefits. Funds for continuing replacements, additions, and extraordinary maintenance items also are included. This includes $600,000 of extraordinary maintenance for the Shoshone Canyon Conduit repairs.

Work starting in FY 1997 The request includes $350,000 for the Geographic Information System, and for Reclamation's initiative to seek cost sharing partners, pursue title transfer, and improve relationships with state and local entities.

Changes from FY 1996 The O&M projects for the Great Plains Region have been realigned to match the Area Office boundaries to more effectively manage the resources.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$12,419,000	$13,789,000
Non-Federal	404,000	401,000

Yakima Project
Washington

Location The project is located in south-central Washington.

Description The project provides irrigation water for approximately 464,000 acres, hydroelectric power generation, flood control, and anadromous fishery production benefits. The project consists of six storage dams and reservoirs, two hydroelectric powerplants with a combined generating capacity of 25,000 kilowatts and an average annual generation of about 115,000,000 kWh, fish ladders and screens, and the hydromet system for water and flood control forecasting. Canal and water distribution systems are operated by the water users.

Work continuing The request includes $8,655,000 for continuing operation and maintenance (O&M) functions of the project including expenses such as personnel costs, supplies and materials, various services; $1,412,000 to complete rehabilitation construction on Kachess Dam and Outlet Works rehabilitation; and $60,000 for completion of life safety code modifications on the Roza facilities.

Work starting in FY 1997 The request includes $583,000 for new replacements and additions of which $275,000 allows for addition of a hazardous materials storage building for use in the fish maintenance program; $200,000 to begin replacement of the hydromet radio network to comply with Congressional mandate for conversion of radio frequencies from wide-band radio spectrum to narrowband radio spectrum; and $175,000 for replacement of vehicles which are necessary for day-to-day O&M activities.

In addition, extraordinary maintenance work totals $818,000 of which $450,000 is for detailed examination and assessment of the likelihood of catastrophic failure of the Tieton Dam intake tunnel and placement of a prefabricated bulkhead over the discharge pipe fulling valve inlets to allow replacement of the valves; $200,000 for screening materials to rehabilitate fish screens; and $168,000 for Cle Elum shoreline stabilization to avoid damage to private property and potential litigation.

In addition, $279,000 is included for new activities including $212,000 for water management conservation and activities related to elimination of unauthorized use of water; and $67,000 for repairs and replacement of dam instrumentation necessary to monitor safe dam performance.

Changes from FY 1996 The change primarily reflects increases in new and continuing replacements, additions, and extraordinary maintenance work as identified above; increased fish maintenance costs for the Chandler juvenile fish facility; and minor increases due to inflation in the ongoing O&M program.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$ 7,314,000	$10,335,000
Other Agency	893,000	1,289,000
Non-Federal	1,331,000	2,312,000

Yuma Area Projects
Arizona, California, Nevada

Location These projects are located in western Arizona, southeastern California, and southern Nevada.

Description The projects provide for operation and maintenance (O&M) of Reclamation facilities from Davis Dam to the Southerly International Boundary with Mexico (approximately 276 river miles). These facilities were constructed under the Colorado River Front Work and Levee System, Colorado River Basin Salinity Control Act - Title 1, and Delivery of Water to Mexico Project. Delivery of Water to Mexico includes all activities necessary to meet the requirements of the 1944 Treaty with Mexico. Benefits provided by these projects include efficient water delivery of 7 million acre feet annually for cities, towns, and agriculture. Flood and sediment control, recreation, and fish and wildlife benefits are also derived. The Yuma Area Projects operate the river to deliver water to over 1 million acres of irrigable land in the United States and Mexico and to over 1,700,000 urban users in the United States and Mexico.

The Yuma Area Projects O&M funding request does not include funding for O&M of Reclamation facilities of which O&M responsibility has previously been turned over to area water districts. This has reduced the program's potential Federal funding obligation by approximately 50 percent.

The Yuma Area Projects O&M program is formulated as two major program activities: River Facility O&M and Salinity Features O&M.

River Facility O&M program activities include maintaining the Colorado River channel, settling basins, floodways, and operating bridges. The program also ensures the integrity of the levees, keeps access roads usable, provides for repair of river banklines, jetties, and training structures, and maintains drainage and/or groundwater recovery wells, and related carriage facilities. The program insures Mexican Treaty requirements and water needs are met by O&M of the protective and regulatory pumping unit wellfield and associated conveyance system, transmission lines, and switchyard/substations. The program includes O&M of fish and wildlife facilities, including constructed mitigation features to restore habitat; and environmental investigations and studies to satisfy NEPA compliance requirements and ensure the integrity of mitigation work. The program also provides for the O&M of reservoir facilities which include Imperial Dam, Laguna Dam, Senator Wash Dam, and Senator Wash Pumping/Generating Plant. The program supports land resource management activities which serve the public by administering Reclamation lands, maintaining boundary surveys, and processing right-of-way studies.

Salinity Features O&M program activities include maintenance of the Yuma Desalting Plant complex at a level to meet treaty requirements with Mexico. This requires the maintenance of 70 miles of the salinity drainage channel system consisting of the Main Outlet Drain (MOD), the Main Outlet Drain Extension (MODE), the U.S. Bypass Drain, and the Mexico Bypass Drain. Water budgeting and a water sampling program of collecting, testing, and analyzing irrigation drainage return flows and Gila and Colorado River waters, ensure desalting/replacement obligations and Mexican Treaty salinity requirements are maintained.

Work continuing The request includes $13,765,000 for the preventative maintenance River Facility O&M program The funding will cover continuing expenses and general operating support services for ongoing O&M of existing features; power for Yuma area wells; operation, maintenance, and studies of environmental features; an operating agreement and power at Imperial and Senator Wash Dams (for delivery of water to Mexico); water conservation activities with water districts; and an ongoing contract for warehousing and other Yuma Area Office facility services.

For the Salinity Features O&M program activities, the request includes $6,035,000 required to keep the Yuma Desalting Plant in ready reserve (non-operational) status. Upstream water supplies in storage are adequate to meet Mexico treaty requirements for salinity for the next several years. Reclamation is taking advantage of that opportunity to conduct a review of plant operations. Funds for continuing O&M of the MOD, MODE, and the U.S. and Mexico sections of the Bypass Drain, and the water budgeting and sampling program also are included.

Changes from FY 1996 The decrease is due to completion of replacements, additions, and extraordinary items in FY 1996. Funding for replacements, additions, and extraordinary maintenance is minimal in FY 1997.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$21,332,000	$20,380,000
Non-Federal	50,000	1,050,000

OPERATION AND MAINTENANCE APPROPRIATION FINANCED PROGRAMS

(Associated Programs)

Associated O&M Programs

Various States

Departmental Irrigation Drainage Program

Description The program provides for Reclamation's share of the Department's programs which address irrigation-induced water quality problems involving Interior's responsibilities in the 17 Western States. Consisting of five phases: site identification, reconnaissance investigations, detailed studies, planning for remediation, and actual remediation, this program is an outgrowth of departmental and congressional concerns relating to trace element contamination problems at Kesterson Reservoir in the San Joaquin Valley of California.

Work continuing Phases I through III of the program are nearly completed. Projects in Phase IV include Gunnison-Grand Valley, CO; Sun River, MT; Klamath, CA/OR; Stillwater Wildlife Management Area, NV; and San Juan, NM. Ongoing activities entail implementing plans of study, developing work plans, preparing public involvement plans, environmental documents, and planning documents; and selecting the recommended plan for remediation.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,917,000	$3,109,000

Environmental Program Administration

Description This associated program provides resources to assess, evaluate, study, and formulate plans to ensure compliance with environmental law, policy, and initiatives. It also provides for the collection of data for the conservation of endangered or threatened species in compliance with the Endangered Species Act and for meeting requirements of the National Historical Preservation Act.

Work continuing Analysis and documentation activities involving environmental resource issues continue. For example, a review of the operation of Reclamation facilities on the Platte River in Wyoming and the Missouri and Yellowstone Rivers in Montana will assess impacts of operating the facilities on several threatened and endangered species. Funds also are provided for activities to inventory, identify, and protect threatened cultural resource sites. Funds are provided for coordination of cultural and environmental issues with other agencies and for public education of historic and environmental issues.

Changes from FY 1996 The increase from FY 1996 is for extensive environmental law compliance for activities within the Colorado River boundaries and cultural resource emphasis for public involvement, education, and compliance. The program also includes additional funding for Geographic Information System surveys, analysis, and initial database documentation, as well as National Historical Preservation Act and Section 7 Endangered Species Act requirements.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$1,169,000	$2,255,000

Examination of Existing Structures

Description The program provides for the onsite review and examination of Reclamation facilities operated by both Reclamation and other entities, identification of O&M deficiencies, and tracking corrective actions. This program provides for the safe and proper operation of facilities for their intended purposes, the reduction of in-service failures and breakdown maintenance, and protection of the Federal investment.

Work continuing Cyclical examinations for review of water storage, conveyance, and distribution facilities for correcting operation and maintenance deficiencies will continue. Approximately 65 examinations are conducted annually. This program also includes the review, update, and evaluation of Standing Operating Procedures and Emergency Preparedness Plans.

Changes from FY 1996 The FY 1997 program decreased because funding for Emergency Preparedness Plans has been moved into projects.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$2,148,000	$1,669,000
Non-Federal	150,000	32,000

Land Resources Management

Description The program finances operation and maintenance related activities on lands managed by Reclamation for which there is no other source of funds. The work includes liaison with cooperating land management entities to ensure that related contractual arrangements are adequately administered, including contracts for boundary surveys and fencing conformance. In addition, this program includes Reclamation's efforts to develop resource management plans to facilitate the proper management and development of Reclamation lands by other agencies and interests. The program provides for hazardous waste inventory, remediation, and management activities, including weed and pest control efforts. The program also includes efforts to meet requirements of the Native American Graves Protection and Repatriation Act.

Work continuing Liaison with cooperating recreation, fish and wildlife, and other entities continues. Technical investigations will continue on underground storage systems and all facilities will be audited to determine the use, generation and/or storage of hazardous materials. The formulation of emergency planning and prevention strategies under the spill prevention, control and countermeasure plans are made for protection purposes. Resource management plans will be underway at approximately 14 reservoir and canal areas in Arizona, California, Nevada, North Dakota, Washington, and Wyoming. Environmental compliance checks, water quality investigations, landfill investigations, vegetative studies, trespass resolution, withdrawal reviews, Integrated Pest Management, and program administration will continue. The inventory, handling, and disposition of archeological collections and human remains associated with the requirements of the Native American Graves Protection and Repatriation Act will continue to be emphasized.

Work starting in FY 1997 A comprehensive Geographic Information System process will be used to compile data which will technologically enhance Reclamation's capabilities for future administration and management decisions of Reclamation controlled lands. Resource management plans at four reservoir, canal, or other facility sites will be initiated and completed.

Changes from FY 1996 The increase reflects Reclamation's efforts to accelerate completion of resource management plans.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$5,769,000	$7,190,000

Power Program Services

Description This program provides power O&M related support services to regions and projects. The program provides for technical guidance and assistance; coordination services; development of standards, procedures, and instructions; conducting special engineering studies; and producing seminars or training sessions related to power O&M work. This program provides for a pool of technical, consultative resources to assist regions and projects in accomplishing safe, efficient power facility O&M. Activities carried out under this associated program include the Reclamationwide power related work activities that are considered standard electric utility business expenses to be repaid through power revenues.

Work continuing Coordination with the electric utility industry, participation on electric utility councils, and development of core power business practices will continue. Development and application of improved processes and procedures for safe operation and maintenance of electrical and mechanical equipment will continue. Core technical guidance and assistance, special or rapid-response engineering or investigation studies, and consultative resources in highly specialized operation and maintenance activities will be continued, as will maintenance and development of improved specialized test and adjustment equipment. Technical standards will be evaluated, developed, and applied to identify needed improvements, enhance safety, comply with industry regulations, and improve reliability and performance.

Work starting in FY 1997 New test and inspection practices and procedures to comply with industry codes and improve safety and reliability of equipment will be developed and implemented.

Changes from FY 1996 Initiatives identified by the National Performance Review Power Management Laboratory will be implemented.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$927,000	$1,187,000

Reclamation Law Administration

Description This associated program provides for administration of the acreage limitation provisions of Reclamation Law, including the Reclamation Reform Act (RRA) of 1982, as amended. Activities include land classification/equivalency determinations, field audit and compliance checks, oversight of water user certification of compliance with legal requirements, and field work data gathering under the Acreage Limitation Program.

Work continuing Land classification, equivalency determinations, field audit and compliance checks, water user certification of compliance with legal requirements, and field work data gathering to insure compliance with RRA continue. This program also supports monitoring and review of submitted water conservation plans; educational, technical training, and environmental assistance on RRA compliance; implementation assistance; and monitoring of implementation status.

Changes from FY 1996 The FY 1997 request increased because of needed outreach activities associated with implementing final decisions on westwide RRA rules; a higher level of emphasis on reviewing eligibility determinations and compliance with acreage limitation requirements; continued development of a Geographic Information System for development of a database; and increased emphasis on conservation plans associated with RRA.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$4,143,000	$4,619,000
Non-Federal	36,000	36,000

Recreation and Fish and Wildlife Program Administration

Description Reclamation's guidance and support of recreation and fish and wildlife activities are provided under this program. Evaluation of the impacts of existing project operations on wetlands and endangered species habitat also is included in the program. In addition, the program includes liaison with cooperating recreation interests, concessionaires, and fish and wildlife management agencies.

This program provides for the rehabilitation of recreation areas to bring facilities up to current public health and safety standards; to correct any facility design deficiencies; to protect the original Federal investments; and to save the Federal government the expense of operating these recreation areas. Recreation rehabilitation under Title 28, Public Law 102-575, is cost shared on a 50/50 basis with managing partners.

Work continuing Activities that continue include managing natural, restored, and artificially designed fish and wildlife habitats, evaluating impacts of existing project operations on wetlands and endangered species habitat, rehabilitating fish and wildlife habitat cover, water resources adjudication, and vegetative studies related to fish and wildlife. Multi-agency programs and studies to restore and enhance wildlife habitat along several rivers, including the Colorado, will continue. Funding is included for negotiation and administration of agreements with concessionaires.

Funding is included for rehabilitation of recreation infrastructures at Crawford, Vega, Rifle Gap, and Paonia Reservoirs, Colorado, and Navajo Reservoir, Colorado-New Mexico.

Work starting in FY 1997 A 2-year program to rehabilitate 25-year-old recreation facilities on a 50/50 cost-share basis with the State of Utah and a Challenge Program to enhance recreation and fish and wildlife resources, also on a 50/50 cost-share basis, with the State of Idaho will be initiated. Ecological studies on Lakes Mead and Mohave, Arizona-Nevada, for species introduction, reproduction, and tolerance abilities will begin. Improvements of fish habitat and recreation opportunities at Bartlett Reservoir, Arizona, also will begin.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$3,408,000	$3,261,000
Non-Federal	977,000	850,000

Associated Programs . . . .

Safety Evaluation of Existing Dams

Description Reclamation's dams must be maintained in a safe condition to protect the public, property, and natural resources. The proposed program provides for early detection, data collection, instrumentation, and analysis of potential dam safety deficiencies for Reclamation's 382 high and significant hazard dams and dikes and implements the Federal Guidelines for Dam Safety as directed by Presidential memorandum. The guidelines are intended to promote prudent and reasonable dam safety practices and a common approach to dam safety management by all Federal dam agencies responsible for dams. The public risk associated with confirmed deficiencies also is identified. Corrective actions to reduce the risk to the public are evaluated and performed in the Safety of Dams program which is a part of the Construction Program appropriation.

Approximately 50 percent of Reclamation's high and significant hazard potential dams and dikes were built between 1900 and 1950, and approximately 90 percent of Reclamation's dams and dikes were built before current state-of-the-art foundation treatment and filter techniques were incorporated in embankment dams. The safe performance of dams, especially those having obsolete design features, becomes a greater concern with age. A strong dam safety program must be maintained to help ensure the continued safe performance of Reclamation's inventory of aging dams.

Work continuing Regular inspections and evaluating instrumentation performance data will continue on all 382 dams and dikes in Reclamation's Dam Safety Program throughout the 17 Western States. Funding also is requested to investigate deficiency concerns and identify and diagnose the cause of problems. Deficiency investigations activities, such as data collection and analyses, are planned for more than 20 dams and dikes. Most deficiency investigations will concentrate on dams in California, Colorado, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Utah, and Washington and Wyoming. Activities may shift to other Reclamation dams as funding will be focused at those dams presenting the greatest risk to the public as determined by increased knowledge from performance, data collection, analyses, and inspections.

Work starting in FY 1997 The FY 1997 request includes funding for a program to improve instrumentation at various dams.

Changes from FY 1996 The increased funding is the result of continued emphasis on the public safety concerns advocated by the dam safety program, including Safety Evaluation of Existing Dams.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$7,690,000	$9,416,000

Water Management and Conservation Program

Description This associated program provides for the coordination of water management and conservation efforts with the water users and other Federal and non-Federal agencies and for reconnaissance studies on existing Reclamation projects. The program also provides water operation and maintenance (O&M) program support services to regions and projects. It provides technical guidance and assistance; coordination services; development of standards, procedures, guidebooks, and instructions; and seminars or training sessions related to water O&M work.

Work continuing The request provides for the coordination of water management and conservation efforts with the water users and other non-Federal agencies. It also provides for water quality monitoring; water conservation centers and training and educational efforts; oversight of water service contracts and entitlements, including the mainstream of the Colorado River; studies of various methods of water conservation and optimization of existing resources, and continuation of Irrigation Management Improvement Programs. Water conservation programs will continue, including those in partnership with AmeriCorps in urban areas of Southern California. This program will assist irrigation and municipal water districts in demonstrating and implementing water conservation practices. Geographic Information System database development and generation and analysis of data will continue, as well.

Changes from FY 1996 The reduction from FY 1996 is the result of completing the initial development of the Lower Colorado River Accounting System and efficiencies in various water conservation partnership program.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$10,573,000	$8,910,000
Non-Federal	10,000	- 0 -

The budget request also includes the following essential Associated O&M Programs, though they require smaller budgetary resources.

Miscellaneous Flood Control

Description This program provides for the collection of data such as rainfall and streamflow measurements and runoff forecasting with computerized hydrology models which are necessary for determining any threat of flooding. The program also provides for the maintenance of early warning systems. Coordination with the Army Corps of Engineers and the Geological Survey for streamgaging continues.

Changes from FY 1996 The increase from FY 1996 is the result of greater emphasis being placed on Early Warning Systems.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$587,000	$965,000

Negotiation and Administration of Water Marketing Contracts

Description This program provides for administration of repayment contracts and operational studies for water marketing purposes.

Changes from FY 1996 The FY 1997 program reflects increases in Reclamation's water marketing efforts.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$ 7,000	$37,000
Non-Federal	19,000	19,000

Associated Programs . . . .

Operation and Maintenance Program Management

Description The program includes analyses and evaluation of existing Reclamation practices regarding the level of project operation and maintenance to improve project operation methods, establishes appropriate levels of maintenance, supports the program formulation process, and establishes universal business and management practices. Revenue disposition and related appeals and their resolution relative to legal and contractual issues will be evaluated.

Changes from FY 1996 The increase is due to new standardized O&M management practices which will be implemented Reclamation-wide.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$195,000	$334,000

Public Access and Safety Program

Description This program establishes acceptable standards for providing access for persons with disabilities, identifies potential safety hazards, minimizes risk of personal injury and loss of life, thereby reducing liability to the operating entities and Reclamation. Activities include policy formulation, program administration, and identification of specific corrective actions.

Changes from FY 1996 The FY 1996 request has decreased because public access and safety activities are being completed.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$690,000	$451,000

Soil and Moisture Conservation

Description This program provides for administration of soil and moisture conservation in accordance with Reclamation's good neighbor policy and covers only those activities where the benefits are of a nonreimbursable nature, such as erosion and weed control on Reclamation lands. The program also provides fire protection and suppression, including the watersheds of the Cachuma and Ventura River Projects.

Summarized Financial Data

	FY 1996	FY 1997
Reclamation	$209,000	$245,000
Non-Federal	- 0 -	- 0 -

OPERATION AND MAINTENANCE REVENUE FINANCED PROGRAMS

Revenue Financed Programs

Lower Colorado River Basin Development Fund
Central Arizona Project

Description The Central Arizona Project (CAP) operation and maintenance (O&M) program covers completed portions of the project which remain a Federal responsibility, long-term environmental commitments, and interest payments to the U.S. Treasury. The power development facilities include Reclamation's entitlement to 547 megawatts of power from the Navajo Generating Station, which is a 2,250 megawatt, coal-fired steam plant operated by the Salt River Project. The revenues from the sale of any surplus power aid in the repayment of the CAP. These facilities are operated for power production, irrigation, municipal and industrial water use, flood control, and recreation.

Changes from FY 1996 Changes are due to the transfer of New Waddell Dam to the Central Arizona Water Conservation District during FY 1996. The initiation of the repayment of Regulatory Storage increases the interest payment to the U.S. Treasury and Federal oversight costs, while Reclamation's O&M of Regulatory Storage is eliminated.

Summarized Financial Data

	FY 1996	FY 1997
Navajo Generating Station	$85,415,000	$85,415,000
Other Completed Portions Prior to Transfer	1,600,000	1,787,000
Environmental Commitments and Oversight of O&M	1,000,000	- 0 -
Interest payment on Aqueduct system	49,252,000	59,596,000
Total program	$137,267,000	$146,798,000

Upper Colorado River Basin Fund
Colorado River Storage Project

Description Consumptive Uses and Losses: The Upper Colorado River Storage Basin consumptive use studies are required by the Colorado River Basin Project Act, Public Law 90-537, which directs the Secretary of the Interior to report the annual consumptive uses and losses of water from the Colorado River system after each 5-year period beginning with the 5-year period starting October 1, 1970. Data collection and preparation of reports will continue.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$250,000	$250,000

Description Initial Units: The program provides for continued operation and maintenance of four main-stem storage units consisting of six dams and reservoirs. Also included are operation and maintenance of the Glen Canyon, Flaming Gorge, Morrow Point, Blue Mesa, and Crystal Powerplants that provide 1,710,000 kilowatts of hydroelectric power. Activities associated with land resource management, endangered fish and environmental studies, and the long-term monitoring program also will continue.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$27,533,000	$26,206,000
Non-Federal	15,000	15,000

Description Quality of Water Studies: The Colorado River Storage Basin Quality of Water Studies are required by Public Laws 84-485 and 87-590. The Congress has directed the Secretary of the Interior to report biennially on the quality of water of the Colorado River Basin. As a result of congressional directive, Reclamation was given leadership in preparing the report and coordinates with the U.S. Geological Survey.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$250,000	$250,000

Emergency Funds

Description The program provides for emergency repairs of facilities to ensure continued operation of the Colorado River Storage Project, Initial Units, and participating projects.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$500,000	$500,000

Safety Evaluation of Existing Dams

Description This program provides for continued safety examinations of existing dams and field investigations for modification decision analysis of dams in the Colorado River Storage Project.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$300,000	$324,000

Seedskadee Participating Project

Description The project provides for continued operation and maintenance of the Fontenelle Dam, powerplant, and related facilities, including those for the residential community. The powerplant consists of one generator that produces 10,000 kilowatts of hydroelectric power.

Summarized Financial Data

	FY 1996	FY 1997
Revenues	$532,000	$502,000
Non-Federal	85,000	80,000

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CONSTRUCTION PROGRAM

General Statement

Reclamation is uniquely qualified to cooperatively develop solutions to water supply problems. Through years of experience, Reclamation is well positioned to work with diverse interstate interests, and coordinate a balanced effort that meets the needs of users and the environment, while satisfying complex Federal, State and local requirements.

The Construction Program is moving away from constructing large-scale dams and distribution systems and moving toward developing innovative water management programs, alternate sources of water, and efficient use of limited supplies. Cost-sharing is receiving increased emphasis, with up to 75 percent of the total costs provided by non-Federal partners in selected cases.

A number of major projects are still under construction, and it is Reclamation's policy, within budget limitations, to seek funding sufficient to move these projects toward completion so that benefits can be realized and repayment of the Federal investment can be initiated. When completed, projects under construction will provide multiple benefits, supplying water to enhance rural, urban, and Native American economies; ensuring the safety of existing Reclamation dams; and protecting and enhancing fish and wildlife habitat to promote recovery of endangered and other species. In addition to specific construction activities, the Construction Program includes the Applied Science and Technology Program which provides for research and engineering studies that support other Reclamation programs, and provide significant cost-saving developments.

FY 1997 Program

Appropriation Financed Projects and Programs

The requested funding level for the Construction Program in FY 1997 is **$392,524,000**. This would keep most ongoing construction projects moving towards completion, and provide for high priority initiatives consistent with overall funding constraints. To minimize Federal costs, each project is being examined to determine if any uncompleted portions might be unnecessary, or better completed by non-Federal entities. Non-Bureau funding sources will be aggressively sought, and projects will be placed into repayment status as soon as possible.

During FY 1997, construction will be underway on 33 major projects, a number of smaller projects and programs, and applied research activities in the Applied Science and Technology Program.

Program Highlights

Fish and Wildlife Mitigation and Enhancement

Reclamation programs to revitalize river basin fisheries are being pursued. Increased Federal funds are included for Phase II of the Yakima River Basin Water Enhancement Project. Work continues on Columbia / Snake River Salmon Recovery; Central Valley Project, Delta Division; and Leadville / Arkansas River Recovery. The Shasta Temperature Control Device will continue in FY 1997. Ecosystem protection continues with Endangered Species Conservation and Recovery. The National Fish and Wildlife Foundation (NFWF) Program will implement conservation and environmental enhancement projects by leveraging Federal funds with non-Federal cost-sharing from a variety of sources.

Water Reuse

Title XVI of Public Law 102-575 authorized Reclamation to participate in the design, planning, and construction of several water reclamation and reuse projects in partnership with non-Federal entities. Projects in the San Gabriel Basin, and the Los Angeles, San Jose, and San Diego areas will continue. These projects are cost-shared, with a minimum of 75 percent of the costs provided by non-Federal partners. The research program also has projects underway to apply techniques for water reuse.

Native Americans

The FY 1997 request includes important programs in support of Native Americans and self-determination efforts. Some projects are primarily for the benefit of Indian Tribes, such as the Mni Wiconi and Indian Water Rights Settlement Projects; others have an Indian component, such as the Central Arizona, Dolores, Garrison, Umatilla, and Animas-La Plata Projects. Funding is requested for Southern Arizona Water Rights Settlement Act (SAWRSA), which has been funded in the Bureau of Indian Affairs budget since FY 1994. Emphasis on Native American programs leads to greater economic development and stronger Tribal government.

Water Quantity and Quality

The Bureau of Reclamation is assisting in construction of municipal, rural and industrial (MR&I) water systems in the Western States. Many areas of the West -- particularly Indian communities -- have water supplies that are inadequate for daily use, substandard, and/or unsafe. Several projects (Mni Wiconi, Mid-Dakota, Garrison) are authorized to provide adequate MR&I water supplies. The Bureau has successfully brought high-quality water to Western cities. Salinity control projects reduce salt loading in river basins, providing improved quality water supplies to meet most downstream user needs. Desalting research is focusing on developing new, low cost technology for transfer to others.

Resource Management and Conservation

Multi-purpose project construction provides the infrastructure necessary to effectively manage the use of limited water resources, considering economic as well as environmental factors. Most ongoing construction projects include water management and conservation components. Reclamation continues its emphasis on water conservation projects, as well as on specific wetlands development. Recreation management and construction will continue in cost-shared arrangements with non-Federal partners to bring facilities up to the level of quality required by State and local codes, and provide handicapped access. First year funding is being requested for the Efficiency Incentives Program to encourage voluntary implementation of the water conservation objectives of the Reclamation Reform Act of 1982. The program will identify and undertake activities to achieve effective water management planning and implementation. Reclamation has also expanded its ecosystem protection program by including funding for the development and implementation of the Platte River Recovery Program. Reclamation's participation in the multi-state basinwide program is anticipated to be in the areas of water conservation, research, monitoring, and program administration.

Other Funding

Scarce Federal funds are leveraged by seeking non-Federal cost-sharing, and making agreements with other Federal agencies. In addition to the amount of new funds requested for the Construction Program, **$29,438,000** of up-front cost-sharing will be provided by non-Federal sources, **$26,064,000** in non-cash services, **$136,203,000** for the non-Federal cost-share in the four water reclamation and reuse projects, plus **$615,000** by other Federal agencies for work on Reclamation construction projects. Another **$38,096,000** is planned to come from the Central Valley Project Restoration Fund.

The appropriation request of **$392,524,000** provides for a total scheduled program of **$421,711,000** (new request) which has been reduced by an underfinancing amount of **$- 29,187,000.** The major portion of the total scheduled program requested for the Construction Program, **$342 million,** is required to continue work underway prior to FY 1996.

After underfinancing, there is an estimated **$50 million** available to fund new activities under the appropriation request. New activities include new contract awards, land acquisitions, materials and supplies, data collection, and design.

Accomplishment of the FY 1997 Construction Program will improve public safety, and provide additional water and power service for years to come. During FY 1997, facilities will be completed that will increase municipal, rural, and industrial water supplies by 7,600 acre-feet and daily recreation capacity by over 4,700 visitors. Direct irrigation service will be increased by nearly 6,500 acres. Power generation, water conservation, fish and wildlife mitigation, and salinity control will continue.

Summarized Financial Data

Construction Program	**Enacted FY 1996**	**Request FY 1997**
Appropriation	$411,046,000	$392,524,000
Application of prior year funds	34,185,504	- 0 -
Non-Federal participation - cash	38,159,668	29,438,000
Other Federal agency participation	1,482,939	615,000
Total obligations	$584,874,111	$422,577,000
Non-Federal participation - services 1/	153,034,500	162,267,000
Total program	$637,908,611	$584,844,000

1/ Includes $137,450,000 in FY 1996 and $136,203,000 in FY 1997 for 75 percent non-Federal cost-sharing in water reuse and reclamation projects.

Project Authorizations

All construction activities for FY 1997 can be performed under current authorizations, with the exception of the Central Valley Project (CVP), **Trinity River Division**.

Appropriation Ceilings

There are six other projects that would require legislation to increase appropriation ceilings before they could be completed as authorized. These are: the **Auburn-Folsom South Unit, the San Luis Unit**, and possibly the **San Felipe Division, CVP**; the **Garrison Diversion Unit, P-SMBP**; the **Umatilla Project**, and the **Animas-La Plata Project, CRSP**.

As a result of the Office of Inspector General audit on the Hoover Dam Visitor Facilities Program, the methodology used to calculate appropriation ceilings for Reclamation projects has been revised. Policies and procedures have been established to ensure that individual ceiling components, project units, are indexed, reviewed and reported to Congress as necessary. Appropriation ceilings without specific breakdowns to project units have been divided into major project units and reported accordingly.

Three projects are being reported as exceeding their ceiling calculations, when partitioned by project unit: the Central Arizona Project, and the Dolores and Dallas Creek Participating Projects of the Colorado River Storage Project.

Expenditures-to-date and balance-to-completion costs were divided into separable projects or project units. These estimates were then compared to the portion of the appropriation ceiling which was estimated for the separated project or project units. The estimates by project unit are approximate. Further analysis is required to refine these estimates.

The status of specific project appropriation ceilings is detailed on the individual project data sheets.

BUREAU OF RECLAMATION
CONSTRUCTION PROGRAM
(in thousands of dollars)

Projects	FY 1996				FY 1997		
	New Bdgt authority	Prior Yr Funds	Non/Other Federal	Total	New Bdgt authority	Non/Other Federal	Total
Regular Construction:							
Boulder Canyon	0	4,052		4,052	0		0
Central Arizona Proj (see also SOD)	*85,067*	*628*	*10,670*	*96,365*	*71,728*	*4,251*	*75,979*
Water Development	57,774	628	10,670	69,072	45,841	4,251	50,092
Navajo Capital Improvements	27,293			27,293	25,887		25,887
Central Valley Project:							
American River Division, CVP (Folsom Dam)	6,000	587		6,587	11,000		11,000
Auburn-Folsom South Unit, CVP	1,357	53	787	2,197	2,500		2,500
Delta Division, CVP	6,080	564		6,644	8,850		8,850
Miscellaneous Project Programs, CVP	10,973	2,717	2,250	15,940	14,200		14,200
Sacramento River Division, CVP	5,925	1,189	2,200	9,314	7,200		7,200
San Felipe, CVP	664	20		684	0		0
San Joaquin Division, CVP	0			0	4,737		4,737
San Luis Unit, CVP	800		275	1,075	2,900	275	3,175
Shasta Division, CVP	19,749	1,870		21,619	500		500
Trinity River Restoration Program, CVP	3,767			3,767	5,000		5,000
Colorado River Salinity Control:							
Title I (Includes Yuma Desalting Plant)	2,300	345		2,645	2,300		2,300
Grand Valley Unit	5,799	277		6,076	5,500		5,500
Lower Gunnison Basin Stage 1	31	40		71	0		0
Paradox Valley Unit	300	64		364	0		0
Title II Basinwide Program ("New Format")	500			500	5,000		5,000
CRSP Construction - Sections 5 and 8							
Animas-La Plata	10,250	2	670	10,922	10,000	1,900	11,900
CUP, Bonneville Unit	13,369	5,418		18,787	7,495		7,495
Dolores Project	3,470	530		4,000	6,115		6,115
Other Sect. 8; Recreation, Fish, and Wildlife	1,510	924		2,434	1,940		1,940
Columbia Basin, Irrigation Facilities	2,463	500		2,963	2,590		2,590
Columbia/Snake R. Salmon Recovery	13,500	415		13,915	15,000	2,500	17,500
Efficiency Incentives Program	0			0	4,350	4,350	8,700
Endangered Species Conservation & Recovery	8,563	1,002	2,170	11,735	14,511	2,981	17,492
Mid-Dakota Project	10,902			10,902	2,500		2,500
Minidoka, Northside Drainwater	60			60	180		180
Mni Wiconi Project	21,140			21,140	28,350		28,350
National Fish & Wildlife Foundation	1,400		1,628	3,028	2,500	2,000	4,500
Native American Affairs	4,225	739		4,964	6,759		6,759
Pick-Sloan Missouri Basin Program:							
Belle Fourche Unit, P-SMBP	3,802		1,000	4,802	5,100	1,000	6,100
Garrison Diversion Unit, P-SMBP	23,648	112		23,760	21,600		21,600
S. Ariz. Water Rights Settlement (SAWRSA) 1/	0			0	7,000		7,000
Umatilla Project	6,875	2,228		9,103	4,900		4,900
Water Reclamation & Reuse							
Los Angeles Area Waste Water Reuse	9,545	8		9,553	14,300		14,300
Northwest Texas Wastewater Reuse	1,500			1,500	0		0
Port Hueneme Brackish Water	1,000	0		1,000	0		0
San Diego Area Wtr Reclamation	2,692	7		2,699	9,340		9,340
San Gabriel Basin Water Reclamation	6,403	7		6,410	5,800		5,800
San Jose Water Reclamation & Reuse	1,450	55		1,505	2,760		2,760
Yakima R. Basin Water Enhance, Phase II	1,500		800	2,300	4,475	499	4,974
Other Prior Year Funds	0	20		20			
Subtotal - Regular Construction	298,579	24,373	22,450	345,402	318,980	19,756	338,736

BUREAU OF RECLAMATION
CONSTRUCTION PROGRAM
(in thousands of dollars)

Projects	FY 1996				FY 1997		
	New Bdgt authority	Prior Yr Funds	Non/Other Federal	Total	New Bdgt authority	Non/Other Federal	Total
Rehabilitation and Betterment:							
Ogden River	975	8	1,867	2,850	0		0
Shoshone	1,300			1,300	1,459		1,459
Weber Basin	974	46	2,057	3,077	1,700	152	1,852
Subtotal - Rehabil. & Betterment	3,249	54	3,924	7,227	3,159	152	3,311
Drainage & Minor Construction:							
Boise	510			510	200		200
Brantley	600	53		653	700		700
Colo. R. Front Work & Levee System	1,800	605		2,405	2,100		2,100
CRSP, Dallas Creek, Section 5 & 8	270	155		425	300		300
Hungry Horse Selective Withdrawal	110	109		219	0		0
Klamath	2,318			2,318	2,245		2,245
Lake Meredith Salinity Control	570	676	2,220	3,466	100	4,780	4,880
Leadville/Arkansas River Recovery	530	104		634	650		650
McGee Creek	120	37		157	0		0
Mountain Park	660	203		863	1,700		1,700
Newlands	6,961	2	868	7,831	6,550		6,550
Nueces River	100	30		130	0		0
Pick-Sloan Missouri Basin Program:							
Farwell Unit, P-SMBP	40	33		73	0		0
North Loup Division, P-SMBP	900	178		1,078	900		900
Oahe Unit, P-SMBP	80			80	85		85
Recreation Management, Title 28	3,297	907	3,500	7,704	3,515	512	4,027
Rio Grande, Colonias Program 2/	0			0	1,000		1,000
San Luis, Closed Basin Division	0	90		90	400		400
Tres Rios Wetlands Demonstration	500	6		506	500		500
Velarde Community Ditch	1,500	12		1,512	2,000		2,000
Wetlands Development	4,724	374	200	5,298	3,938	800	4,738
Yakima Fish Passage & Protective Facilities	1,210		1,500	2,710	370	1,725	2,095
Other Prior Year Funds	0	646		646			
Subtotal - Drainage & Minor Constr	26,800	4,220	8,288	39,308	27,253	7,817	35,070
Safety of Dams Program:							
CAP, Roosevelt Dam (Salt R. Project)	19,411	1,097	1,513	22,021	4,918	761	5,679
CVP, Folsom / Mormon Island Dam	0	251		251	1,750		1,750
CVP, O'Neill Dam	0		1,509	1,509	0		0
Crooked River, Ochoco Dam	6,000	1,402		7,402	900		900
Department Dam Safety Program	1,270	71		1,341	1,200		1,200
Humboldt Project, Rye Patch Dam	3/			0	0		0
Initiate SOD Corrective Action 3/	32,410	355		32,765	25,050		25,050
Salt River Project, SODP:							
Bartlett Dam	8,085	9	750	8,844	3,097	408	3,505
Horseshoe Dam	1,103	16	27	1,146	403	26	429
San Angelo, Twin Buttes Dam	3/				23,000		23,000
San Carlos (BIA), Coolidge Dam	974	16		990	221		221
Scofield Project, Scofield Dam	3/			0	500		500
SOD Corrective Action Studies	2,300	172		2,472	2,500		2,500
Umatilla , Cold Springs Dam	2,750			2,750	0		0
Yakima, Bumping Lake Dam	1,825	155		1,980	640		640
Other Prior Year Funds	0	260		260			
Subtotal - Safety Of Dams	76,128	3,804	3,799	83,731	64,179	1,195	65,374

BUREAU OF RECLAMATION
CONSTRUCTION PROGRAM
(in thousands of dollars)

Projects	FY 1996 New Bdgt authority	FY 1996 Prior Yr Funds	FY 1996 Non/Other Federal	FY 1996 Total	FY 1997 New Bdgt authority	FY 1997 Non/Other Federal	FY 1997 Total
Applied Science & Technology							
Groundwater Recharge Demo.	1,141	225	32	1,398	540	18	558
Improved River Basin Control	0			0	400		400
Technology Advancement	282			282	400		400
Watershed Modeling Systems Initiative	747	22		769	1,000		1,000
Water Treatment Technology	1,320	10	85	1,415	2,000	100	2,100
Water Tech And Environ. Research	2,800	718	1,065	4,583	3,800	1,015	4,815
Other Prior Year Funds	0	268		268			
Subtotal - Science & Technology	6,290	1,243	1,182	8,715	8,140	1,133	9,273
Total Scheduled Program	411,046	33,694	39,643	484,383	421,711	30,053	451,764
Other Prior Year Funds	0	492		492			
Underfinancing	Distributed			0	(29,187)		(29,187)
TOTAL CONSTRUCTION	411,046	34,186	39,643	484,875	392,524	30,053	422,577

Notes:

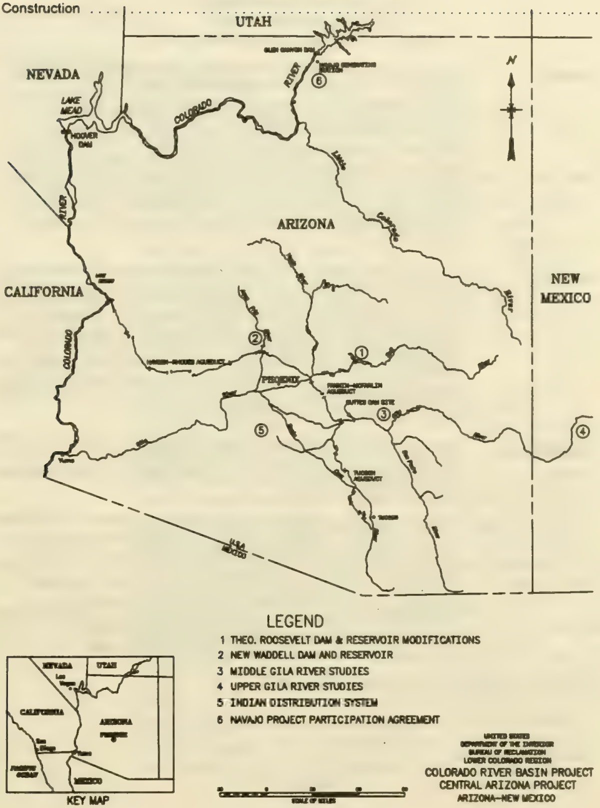
1/ SAWRSA program was funded by BIA during FY 1994-1996. Reclamation requested funds before FY 1994 as part of Indian Water Rights Settlement Act line item.

2/ Rio Grande Colonias work funded by Emergency Funds in FY 1995.

3/ So far three dams, funded out of the ISCA line item in FY 1996, have been moved to their own line items in FY 1997. The dams and their FY 1996 funds are: Scofield ($2 M); Twin Buttes ($11.1 M); and Rye Patch ($4.95 M).

D&MC - San Luis Closed Basin funds are requested to complete work begun prior to FY 1997.

REGULAR CONSTRUCTION


UTAH
NEVADA
LAKE MEAD
HOOVER DAM
COLORADO
RIVER
N
ARIZONA
CALIFORNIA
NEW MEXICO
COLORADO
PHOENIX
USA MEXICO
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LEGEND
1 THEO. ROOSEVELT DAM & RESERVOIR MODIFICATIONS
2 NEW WADDELL DAM AND RESERVOIR
3 MIDDLE GILA RIVER STUDIES
4 UPPER GILA RIVER STUDIES
5 INDIAN DISTRIBUTION SYSTEM
6 NAVAJO PROJECT PARTICIPATION AGREEMENT
NEVADA
UTAH
CALIFORNIA
ARIZONA
MEXICO
KEY MAP
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION
COLORADO RIVER BASIN PROJECT
CENTRAL ARIZONA PROJECT
ARIZONA-NEW MEXICO

Colorado River Basin Project
Central Arizona Project
Arizona, California, Nevada, New Mexico, Utah

Location The Central Arizona Project (CAP) is located in Maricopa, Pima, Gila, La Paz, Mohave, Yavapai, and Pinal Counties of Arizona; San Bernardino County, California; Clark County, Nevada; Grant County, New Mexico; and Kane and Washington Counties, Utah. The Navajo Power Project is located in Coconino County, Arizona. The transmission lines serve both power and water development portions of the project. They are located in Coconino, Mohave, Yavapai, and Maricopa Counties, Arizona; Kane and Washington Counties, Utah; Clark County, Nevada; and San Bernardino County, California. The Non-Indian Distribution Systems are located in Maricopa, Pinal, Pima, and Yavapai Counties, Arizona. The Safety of Dams work at Roosevelt Dam is located in Maricopa and Gila Counties, Arizona.

Description The project is multipurpose in scope. It will provide a partial replacement water supply to 374,221 acres of irrigable lands (which consists of 314,802 acres of non-Indian agricultural land and 59,419 acres of reservation land) and as much as 906,702 acre-feet of water annually for municipal and industrial (M&I) use. Benefits to recreation and flood and sediment control will be provided (the maximum benefits for recreation and power will be realized upon completion of Regulatory Storage Facilities and for flood and sediment control upon completion of modified Roosevelt Dam). In addition, a power entitlement of 546,750 kilowatts is available to the project through terms of the Navajo Project Participation Agreement.

Authorization Public Law 90-537, September 30, 1968; Public Law 97-373, December 20, 1982; Public Law 95-578, November 2, 1978, as amended by Public Law 98-404, August 28, 1985; Public Law 97-293, October 12, 1982; Public Law 101-628, December 28, 1990.

Land certification The project-wide land certification was completed on April 16, 1973. During project construction, supplemental land certifications were completed on lands not included in the original project-wide certification. On February 16, 1994, supplemental land certifications for the Sacaton Ranch South portion of the Gila River Reservation and the Pascua Yaqui Reservation were completed. The land certification for the Gila River Reservation is scheduled for September 1996. Land certifications for the remaining Indian reservations will be scheduled as required. Supplemental land reclassifications will be rescheduled on an as needed basis.

Definite plan report To be completed as required.

Benefit cost ratio as of October 1, 1996 Direct Benefits: 1.3

The ratio was computed by using the authorized interest rate of 3.25 percent. The benefit-cost ratio remained the same as in the 1996 Budget Justifications.

Completion data As of September 30, 1995, the CAP is 79 percent complete. The percent complete decreased from 1994 due to increased costs associated with construction of Indian Distribution Systems. The CAP (Water and Power Development), Safety of Dams portion of Roosevelt Dam, and the Non-Indian Distribution Systems are included in this percent complete. Initial operation of Navajo Generating Station was May 31, 1974. Initial operation of the last (third) generating unit began April 30, 1976. Initial water via the Hayden-Rhodes aqueduct was delivered to the Phoenix metropolitan area in 1985 as scheduled. Initial water delivery was made to users of the Fannin-McFarland Aqueduct and to users in Pinal County in 1986. Initial water delivery to the Ak-Chin Indian Community was made in June 1987. Water deliveries to northern Pima County were made in 1989 and were made to the Tucson area in August 1992.

Water delivery to the central Arizona Indian communities is scheduled according to the following dates: Salt River Pima Maricopa Indian Community, 1996. Notice was given to the Tohono O'odham Nation on September 25, 1992, that the CAP Aqueduct was capable of making canal side water deliveries. The delivery date for San Xavier and Schuk Toak Districts of the Tohono O'odham Nation was established by the Southern Arizona Water Rights Settlement Act (Act). Construction of the reservation delivery systems has been delayed due to difficulties reaching agreement on implementation of the portion of the Act dealing with the San Xavier New Farm allottee water rights. Legislation was passed (Public Law 102-497) which extended the completion date from October 10, 1992, to July 12, 1993. Additional legislation may be required to resolve issues relating to full implementation of the Act. The current schedule anticipates completion after 2002. Fort McDowell Indian Community preconstruction activities authorized under the CAP were completed in September 1991. Construction of their delivery system is being accomplished under the Small Reclamation Projects Act, as required by the Fort McDowell Indian Community Water Rights Settlement Act of 1990, Public Law 101-628. The Yavapai-Prescott Indian Community's water settlement was ratified October 31, 1994. This resulted in a water right allocation exchange agreement dated December 28, 1995, between the Cities of Scottsdale, Prescott and Nogales Cottonwood Water Works, Mayer Domestic Water Improvement District, Rio Rico Utilities and Camp Verde Water System Inc. Under the agreement a financial compensation for their water allocation may be used towards water development. Firm water delivery dates to the remaining

Indian communities, Chui Chu, Gila River, San Carlos-Apache, Pascua Yaqui, Camp Verde, and Tonto Apache will be determined as planning develops.

Water deliveries to the Non-Indian Distribution Systems were made to Harquahala Valley Irrigation District in 1985; Tonopah Irrigation District and Chaparral City Water Company, 1986; and New Magma Irrigation and Drainage District, 1987. Full deliveries were made to Queen Creek, San Tan, and Chandler Heights Citrus Irrigation Districts in 1989. Full deliveries were made to Maricopa-Stanfield and Hohokam Irrigation Districts in 1990. Central Arizona Irrigation and Drainage District was capable of receiving full deliveries in 1992.

Summarized Financial Data

Total Federal obligations			
Reclamation	$4,329,188,350	Allotments to 9/30/95	$3,261,399,683
Other Federal	- 0 -	Allotments for FY 1996	104,478,000
Net property and other transfers			
Federal participation 1/	2,457,000	Allotments to date	$3,365,877,683
Non-Federal participation 2/	332,549,871	Allotments for FY 1997	76,646,000
Adjustments 3/	428,215,427		
Total to be allocated	$5,092,410,648	Balance to complete	$886,664,667

1/ This amount includes $2,529,000 for CAP and -$72,000 for the Non-Indian Distribution Systems.

2/ This amount includes $250,841,000 (includes $101,732 non-cash) contributions provided on modified Plan 6 by local entities, $10,822,000 for recreation provided by Maricopa County, $63,936,871 for non-cash contributions provided by the repayment entities for the Non-Indian Distribution Systems, $3,920,000 by cost sharing partners for environmental enhancements, $985,000 advanced by the State of Arizona for advance planning work, $862,000 provided by Maricopa County for Castle Hot Springs Road, $700,000 provided by Salt River Project for Roosevelt Dam power plant, and $300,000 contributed by the State of New Mexico for drilling at Conner dam site. The City of Tucson's contribution of $84,000 for the Tucson Pipeline and Central Arizona Water Conservation District's (CAWCD) contribution of $99,000 for an analysis of the New River Siphon replacement are also included.

3/ Represents interest during construction which includes $84,500 reimbursable M&I for the Non-Indian Distribution Systems for Chaparral City Water Company and Queen Creek Irrigation District and on the Lower Colorado River Basin Development Fund (LCRBDF) $272,469,590 is for M&I, $154,425,100 for commercial power, and $1,236,237 for recreation. The adjustment increased $886,408 from that shown in the FY 1996 Budget Justifications due to an increase in project costs assigned to the M&I and Power (interest-bearing) portions of the project.

Analysis of Costs	
Federal obligations	
LCRBDF	$3,948,201,000
Non-Indian Distrib System	242,500,350
Safety of Dams	138,487,000
Net property & other transfers	
Federal participation	2,457,000
Non-Federal participation	332,549,871
Adjustments	428,215,427
Total to be allocated	$5,092,410,648

Allotments	LCRBDF1/	Non-Indian 2/	Safety of Dams 3/
Allot. to 9/30/95	$2,908,105,000	$242,500,350	$110,794,333
Allot. for FY 1996	85,067,000	0	19,411,000
Allot. to date	2,993,172,000	242,500,350	130,205,333
Allot. required	71,728,000	0	4,918,000
BTC after FY 1997	$ 883,301,000	0	$3,363,667

1/ Represents total Federal obligations financed under authority of section 309(a), Public Law 90-537, Colorado River Basin Project Act. LCRBDF - Lower Colorado River Basin Development Fund.

2/ Represents total Federal obligations financed under authority of section 309(b), Public Law 90-537, Colorado River Basin Project Act, as amended by Public Law 97-373.

3/ Represents total Federal obligations financed under authority of Public Law 95-578, Safety of Reclamation Dams Act, as amended by Public Law 98-404.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation 1/	1,217,303,000	1,230,322,520
Power	791,870,000	794,279,300
Municipal & industrial water	1,438,015,519	1,457,058,070
Recreation	131,339,000	140,480,737
Flood control	113,058,000	114,725,300
Safety of Dams 2/	163,549,000	161,241,000
Non-Indian Dist.. Systems 3/	305,758,139	306,449,721
Indian Distribution Sys. 4/	275,910,000	410,536,000
Environmental Enhancement 5/	- 0 -	11,413,988
Other 6/	96,014,000	108,280,012
Unallocated costs 7/	354,535,000	357,624,000
Total	$4,887,351,658	$5,092,410,648

1/ Includes $837,692,500 for costs allocated to Indian irrigation which is eligible for deferral under the Leavitt Act and $392,630,020 which is allocated to non-Indian irrigation and is reimbursable.

2/ Allocation of Safety of Dams cost to the various functions as required by Public Laws 95-578 and 98-404, is not necessary. In accordance with the local funding agreement for the Plan 6 features of the CAP, the Salt River Project will provide funding for its share of the agreement. That obligation is 15 percent of the reimbursable costs associated with Safety of Dams.

3/ Includes all costs associated with the Non-Indian Distribution Systems. These costs are not allocated as part of the CAP allocation procedure but are assigned directly to the entities constructing and repaying these facilities. Systems include those for municipal use, $4,581,168 and 10 irrigation districts, $301,868,553.

4/ Indian water may be used for irrigation, domestic, municipal, and industrial purposes on the reservations in accordance with the Secretary's Decision published March 24, 1983.

5/ Environmental enhancement is one of the originally authorized project purposes. This component of the project can be developed after the reimbursable project components are substantially completed and provided sufficient appropriation ceiling is available. Local cost sharing partners will fund $3,920,000 of the work through non-cash contributions.

6/ Includes nonreimbursable costs of $40,635,982 for cultural resources as authorized under Section 7 of the Archeological & Historic Preservation Act of 1974 (Public Law 93-291), $3,500,000 for Pima County flood and erosion control near the City of Marana and $58,071,030 nonreimbursable siphon repair costs as authorized under Title XXXIX of Public Law 102-575. Also, includes prepaid costs of $985,000 for the State of Arizona, $963,000 for contributed investigation costs, $901,000 for the Colorado River Division studies, $862,000 from Maricopa County, Arizona, $700,000 from Salt River Project for Reclamation to evaluate increasing power generation at Roosevelt, $300,000 from the State of New Mexico, $84,000 from the City of

Tucson for the Tucson pipeline, $99,000 from CAWCD for New River Siphon analysis and $1,179,000 for Indian Roosevelt Water Storage as required by Section 4(a) of the Salt River Pima-Maricopa Indian Community Water Rights Settlement Act (Public Law 100-512).

7/ Includes costs of $314,839,000 for the Middle Gila Division and Upper Gila Division which will be allocated when all the beneficiaries and repayment entities are identified and functions determined. Also includes $42,785,000 for the Drainage Division. Construction of these features has been deferred indefinitely.

Cost allocation methodology The same methodology that was used in the FY 1996 Budget Justifications will continue to be used until Stage 2 is placed into repayment in October 1996. At that time, assumptions and procedures used for the Cost Allocation will be revised and updated for all components of repayment.

Explanation	Amount of Change
Central Arizona Project Water Development	
Interest During Construction	$ +886,408
Indexing	+7,792,000
Revised Estimates	
Indian Distribution Systems	+132,592,000
Tucson Reliability	+36,029,000
Regulatory Storage	+30,415,000
Navajo Participation	-12,614,000
Other Project Costs	+5,895,000
Permanent Operating Equipment	+3,095,000
Remaining Divisions	+2,422,000
Hayden-Rhodes	-2,130,000
Tucson Division	-1,201,000
New Work	+4,747,000
Completed Work	-1,253,000
Subtotal	$+206,675,408
Non-Indian Distribution Systems	
Completed Work	$ +691,582
Subtotal	$ 691,582
Safety of Dams-Roosevelt	
Revised Estimates	$ -2,308,000
Total	$205,058,990

The increase in Indian Distribution Systems is due to construction estimates for more extensive irrigation systems for the Salt River-Pima Maricopa, Camp Verde Apache, the Gila River Indian Community, and San Carlos Indian tribes; new activities associated with training and establishing procedures for Public Law 92-638 and Self Governance contracting. These increases are partially offset by decreases on completed work for Yavapai-Prescott, Ft. McDowell and Ak Chin reservations ($1,138,000). Regulatory Storage increased predominately due to the initial fill at New Waddell ($17million). Awarded contracts for enhanced replacement facilities ($14 million) and the costs to closeout construction and settlement of claims also increased ($10 million). These increases were partially offset by decreases on the Roosevelt prime contract ($7 million), completion of Verde River Alternative studies, and relocations at New Waddell. The increased cost on Terminal Reliability is a result of increased land acquisition prices, environmental mitigation, and design level estimates for the pumping plant and reservoir. Navajo Scrubbers decreased as contingencies were reduced to reflect design level estimates. Estimates for demobilization of construction offices increased Permanent Operating Facilities. Other Project Costs increased due to the additional endangered species consultations on the Santa Cruz River and refinements in the costs of environmental enhancement. Hayden-Rhodes and Tucson divisions decreased due to revised estimates to close out completed contracts. Remaining divisions increased as a result of final design estimates for clean up and completion work. New work consists of operation and maintenance during construction costs attributable to Permanent Operating Facilities. Completion of the Fannin-McFarland deficiency work reduced the overall cost below previous estimates.

The allocations for FY 1997 have been revised to incorporate the changes in total costs. The following is a summary of impacts on individual allocations:

Irrigation increased $13,019,520 due to additional joint project costs being allocated to irrigation.

Power increased $2,409,300 due to a relatively higher justifiable expenditure for power which increased joint project costs allocated to power and increased the interest during construction.

Municipal and Industrial Water increased $19,042,551, primarily related to increased costs in Tucson Reliability.

Recreation increased $9,141,737 due to increased joint project costs at New Waddell allocated to recreation.

Flood Control increased $1,667,300 due to increased separable project costs at Hayden-Rhodes and Regulatory Storage allocated to flood control.

Safety of Dams decreased $2,308,000 due to decreases in the construction costs of Modified Roosevelt Dam.

Non-Indian Distribution Systems increased by $691,582 as a result of the arbitrated claim settlement on construction for Hohokam Irrigation and Drainage District.

Indian Distribution Systems increased $134,626,000 due to indexing ($2,034,000), revised construction estimates primarily on Salt River-Pima-Maricopa, Camp Verde Apache and San Carlos Apache distribution systems ($132,168,000), new work associated with training and establishing procedures for Public Law 92-638 and self governance contracting ($1,562,000). These increases were partially offset with decreases in completed work for Yavapai-Prescott, Ft. McDowell, and the Ak Chin reservations ($1,138,000).

Environmental Enhancement is a new allocation line item of $11,413,988 for one of the original authorized project purposes. This component develops wetlands and riparian habitats which have been reduced as a result of ground and surface water diverted over the years for agricultural and municipal developments. This will be done primarily with wastewater effluent.

Other increased $12,266,012 due primarily to revised cost estimates for nonreimbursable siphon repair and cultural resources. Other costs are not allocated to project functions.

Unallocated Costs increased $3,089,000 due solely to indexing. These costs cannot be allocated unless the beneficiaries and repayment entities are identified and functions determined.

Project Repayment

Repaid by	Amount
Irrigators 1/	$ 25,405,000
Power 1/	716,843,793
Municipal & industrial water 1/	992,620,018
Ad valorem 1/	658,363,361
Other 2/	256,513,087
Non-Federal contributions 3/	366,462,871
Deferred/Leavitt Act 4/	837,692,500
Nonreimbursable 5/	880,886,018
Unallocated Cost Repayment 6/	357,624,000
Total	$5,092,410,648

1/ Of the amount scheduled to be repaid by **Irrigators, Power, M&I Water**, and through **Ad Valorem** payments, $2,050,446,000 is covered by an existing contract with CAWCD, $220,786,172 remains to be added under a future amendment to CAWCD's contract and $122,000,000 will be repaid under the Navajo Layoff Contracts.

2/ **Other** amounts consist of reimbursable costs to be repaid by entities other than the CAWCD and Navajo Project layoff contractors: recreation, $14,000,237; Non-Indian Distribution Systems, $242,512,850 which includes the Harquahala Valley and Hohokam Irrigation and Drainage Districts. Harquahala's repayment debt was extinguished by relinquishing their water rights in December 1992. Hohokam's was reassigned to the central Arizona cities to satisfy their Cliff Dam replacement water in December 1993.

3/ **Non-Federal Contributions** consist of State and other governmental entities contributions. The amount of allocated costs which have been contributed by non-Federal entities is Arizona, $985,000; New Mexico, $300,000; the Non-Indian Distribution Systems entities, $63,936,871; Salt River Project for Roosevelt Dam Power plant, $700,000; City of Tucson for Tucson Pipeline, $84,000; CAWCD for delay of the North Fork Siphon, $99,000; Maricopa County for Castle Hot Springs Road, $862,000; Maricopa County for recreation, $10,822,000; in-kind services contributed for environmental enhancements, $3,920,000; and Plan 6 entities, $250,841,000 (contributed by CAWCD, $175,000,000; Arizona cities, $41,787,000; Salt River Project for Safety of Dams at Roosevelt Dam, $22,754,000 Maricopa County Flood Control District, $11,300,000); and interest during construction credit for interest bearing functions of the contributions, $33,913,000.

4/ The amount of costs allocated to Indian irrigation which is eligible for deferral under the **Leavitt Act**. The Leavitt Act permits repayment to be deferred as long as the land is in Indian ownership and repayment is within the land's repayment capability.

5/ The **Nonreimbursable** costs include Safety of Dams, $138,487,000; Colorado River Division, $901,000; Indian Distribution Division, $410,536,000; recreation, $115,688,500; flood control, $103,429,500; Pima County flood and erosion control, $3,500,000; cultural resources, $40,637,000; contributed investigation costs, $963,000, and siphon repair costs, $58,071,030;

and Indian Roosevelt Water Storage $1,179,000; environmental enhancement costs, $7,493,988.

6/ **Unallocated Cost Repayment** includes costs of $314,839,000 for the Middle Gila Division and the Upper Gila Division which cannot be allocated unless the beneficiaries and repayment entities are identified and functions determined and $42,785,000 for the Drainage Division. Construction for these features has been deferred indefinitely.

Status of repayment contracts

The repayment contract with CAWCD was executed on December 15, 1972, and validated on May 24, 1983. An amended contract with the District was executed on December 1, 1988, and validated on January 7, 1991. Notice of completion was issued to the CAWCD placing Phase I of the Lower Colorado River Basin Development Fund portion of the project into repayment, effective October 1, 1993. On July 10, 1995, CAWCD filed suit against the United States seeking a judicial declaration that CAWCD's repayment obligation for CAP costs does not exceed $1.8195 billion; that the Federal government is obligated to reimburse CAWCD for OM&R costs associated with water reserved for Federal purposes; and that the Federal government must finish completion of the construction deficiencies within the $1.8195 billion ceiling at no cost to CAWCD. This action was filed with the United States Bankruptcy court in Tucson. On August 18, 1995, the United States filed a suit in the United States District court in Phoenix which asserts the United States position on repayment, OM&R, completion of deficiencies, use of revenues, and related issues. On September 20, 1995, the complaints were consolidated in the United States District Court in Tucson with the CAWCD suit as the complaint and the Reclamation suit as a counter claim. Initiation of construction on any facilities which will increase the repayment obligation relative to the claimed $1.8195 billion ceiling has been deferred until resolution of the repayment contract issues.

Repayment contracts with the Indian communities must be executed before they are eligible for deferment under the Leavitt Act. The Gila River Indian Community (GRIC) is dividing its obligation into phases to expedite construction. The repayment contract for Sacaton Ranch was executed March 15, 1995; the master contract for the remaining GRIC facilities is scheduled for December 1996. The repayment contracts for the remaining Indian Distribution System will be determined as required.

Construction of the Non-Indian Distribution System has been accomplished under Section 9(d), Reclamation Act of 1939. Ten **Non-Indian Distribution System repayment contracts** have been executed and validated. The repayment contracts for Maricopa-Stanfield Irrigation and Drainage District, Central Arizona Irrigation and Drainage District, and New Magma Irrigation and Drainage District were executed on November 21, 1983, and validated on November 23, 1983. The Harquahala Valley Irrigation District contract was executed January 6, 1984, and validated on April 26, 1984; Chaparral

City Water Company contract was executed December 6, 1984, and validated on March 25, 1985; Hohokam Irrigation and Drainage District contract was executed on April 4, 1985, and validated August 13, 1985; Chandler Heights Citrus, San Tan and Queen Creek Irrigation Districts contracts were executed December 30, 1985, and validated February 14, 1986; Tonopah Irrigation District contract was executed April 8, 1985, and validated July 24, 1985.

On December 3, 1992, the distribution system repayment contract with the Harquahala Valley Irrigation District (HVID) was extinguished under authority of P.L. 101-628. The contract was amended to discharge HVID's repayment obligation. The 13,933 acre-feet of HVID's water was committed for the Fort McDowell Indian Water Rights Settlement Act. The remaining 19,318 acre-feet may be used by the Secretary of the Interior (Secretary) for other purposes including Indian water rights settlements.

On December 21, 1993, the Hohokam Irrigation and Drainage District (HIDD) signed an agreement with the cities of Chandler, Mesa, Phoenix, and Scottsdale; CAWCD; and Reclamation to assign its CAP agricultural water to these cities. This fulfilled the United States obligations to secure Cliff Dam replacement water for the cities as required by Congressional actions on Plan 6. The agreement also requires the cities to pay for the HIDD distribution system Federal indebtedness.

On January 18, 1994, the New Magma Irrigation and Drainage District declared Chapter 9 bankruptcy after Reclamation rejected the District's proposal to restructure the District's repayment obligation for construction of its CAP water distribution system. Reclamation had directed that water deliveries to the District be terminated because of the arrearage. The bankruptcy filing resulted in a judicial stay which directed Reclamation to continue water delivery to the District. The U. S. Bankruptcy Court issued a confirmation order on June 21, 1995, directing Reclamation to amend New Magma's repayment contract and restructure its repayment terms.

The Central Arizona Irrigation and Drainage District (CAIDD) failed to make its February 1, 1994, distribution system payment. On August 12, 1994, CAIDD filed Chapter 9 bankruptcy to reorganize its debts. The results of that petition should be issued in 1996.

On May 19, 1995, Maricopa-Stanfield Irrigation and Drainage District (MSIDD) requested deferment of its semi-annual payments due August 1995 and February 1996. They also requested a deferment contract for restructuring its repayment debt in an effort to avoid petitioning for Chapter 9 bankruptcy. Reclamation awarded the deferment contract and is conducting a payment capacity analysis in preparation for amending its repayment contract.

Irrigation investment per acre

Summary of Irrigation Investment

Total irrigation investment/acre	$3,290
Repayment of irrigation investment per acre by Irrigators	68
Power revenues, M&I Users, Ad valorem taxes	984
Indian irrigation (deferred)	2,238
Payment capacity per acre and/or acre-foot	
Annual charges (per acre-foot)	$81.00
Construction	2.00
Operation and Maintenance	79.00

Status of NEPA compliance Project-wide - Final filed September 26, 1972. Additional activity-specific NEPA compliance documents were completed on all project activities prior to implementation. Current NEPA compliance activities include the draft environmental impact statement (EIS) for Tucson Aqueduct Reliability, which was completed April 18,1995. The final has been deferred 4 years, to March 2000, as a result of a voter initiative to delay municipal use of CAP water 5 years. The environmental assessment process for the Pascua Yaqui Tribes' irrigation system, delayed due to identification of arable lands which will receive CAP water, is scheduled to be completed September 1997. The draft programmatic EIS for the Gila River Indian Community (GRIC), is scheduled for April 1996 and the final in December 1996. The draft EIS was delayed to accommodate the Community's schedule to complete its master plan. The NEPA compliance schedules for the remaining portions of the Indian Distribution Division will be determined as required. NEPA compliance for the Middle and Upper Gila River Divisions has been indefinitely deferred.

Other information Funds to initiate **preconstruction planning** on the CAP were appropriated in FY 1970 and construction began in FY 1971. Funds were also appropriated in FY 1970 to cover the initial liquidation of the contract authority for the Navajo Project Participation Agreement power development features. Funds to initiate preconstruction planning on the Non-Indian Distribution Systems were appropriated in FY 1982, and construction began in FY 1984. Funds to initiate preconstruction work on Safety of Dams at Roosevelt Dam were appropriated in FY 1986 and construction began in FY 1987.

The **final notice of allocation of project water for Indian irrigation use** was published in the Federal Register on October 18, 1976. On December 1, 1980, the Secretary announced a modified allocation and raised the

Indians' priority for receiving water. The modified allocation increased the amount of project water previously allocated Indian irrigation to 309,828 acre-feet and provided that during water shortage years the Indian tribes' irrigation allocation will be reduced 10 percent and any remaining shortage will be shared on a pro rata basis by the Indian and M&I water users. The allocation also would allow M&I water users to substitute other water in exchange for a portion of the Indians' CAP water allocation. Ten contracts providing water to 12 Indian communities have been executed.

The Secretary approved the allocation of project water to non-Indian irrigation users and M&I water users on February 10, 1983.

The **water service subcontract form** was approved by the Secretary in July 1983 and by the CAWCD in November 1983. Ten of the 15 non-Indian irrigation allottees have signed subcontracts. This represents 71 percent of the non-Indian irrigation water. Sixty-six of the 71 M&I allottees have signed subcontracts. These subcontracts represent 558,511 acre-feet or 87 percent of the M&I water allocation. In March 1991, the State of Arizona provided recommendations to the Secretary for uncontracted water. On February 5, 1992, the Secretary published in the Federal Register the final notice reallocating 29.3 percent of the project water supply which was allocated to non-Indian agricultural uses, but not yet contracted. Draft contracts were developed by Reclamation but never offered due to independent and unapproved contract actions taken by CAWCD. The Arizona Department of Water Resources has made its recommendation to the Secretary for reallocation of the uncontracted M&I water. The Secretary's use of the remaining uncontracted water is one of issues in the lawsuit between Reclamation and CAWCD.

As the requirement for agricultural water has decreased, an increasing number of applicants have requested water service subcontracts for M&I uses. This reflects the change in the Arizona economic base from rural agricultural to urban industrial. As these M&I contracts are signed, municipalities will be seeking, through various authorities, to participate with the government in funding work to connect their water systems to the CAP. During 1993, M&I water service subcontracts were executed with the towns of Nogales and Globe, the City of Peoria, the Camp Verde Water System, Cottonwood Water Works, Cyprus Miami Mining Co., E&R Water Company, Magma Copper Company, Maricopa County Parks and Recreation, Mayer Domestic Water Improvement District, and Rio Rico Utilities. Williams Air Force Base assigned its water allocation to the City of Mesa.

As originally authorized, the **Regulatory Storage Division** included Orme Dam and Reservoir which was later replaced by Plan 6. Cliff Dam was deleted from Plan 6 in June 1987, by mutual agreement with the State, the Secretary, Congressional, and environmental interests.

Federal and local officials **executed an agreement on local funding for Plan 6** on April 15, 1986. The proposal requires non-Federal parties to contribute funds of approximately $251 million to the United States to expedite the construction of Plan 6 and to ensure the timely completion of all CAP features. This funding excludes approximately $13 million of Safety of Dams funding for work at Stewart Mountain, Horseshoe, and Bartlett Dams. The entities contributing funds under the agreement include: CAWCD; Maricopa County Flood Control District; Salt River Project Agricultural Improvement and Power District and Salt River Valley Water Users Association; and the cities of Chandler, Glendale, Mesa, Phoenix, Scottsdale, and Tempe. Local funds first became available under the agreement in August 1986. All non-Federal parties continue to contribute their funds on schedule. The funding agreement was amended in October 1987, to reflect the deletion of Cliff Dam from Plan 6. On December 21, 1993, the funding agreement was amended to reassign the water rights and repayment obligation of the Hohokam Irrigation and Drainage District to the Plan 6 cities to satisfy their Cliff Dam water entitlement. The Plan 6 agreement will be further amended to reflect the deletion of Verde River flood control and the changes in the Safety of Dams program on the Verde River.

On September 18, 1991, the Environmental Protection Agency (EPA) approved a ruling that formalized the agreement that had been negotiated among the EPA, environmental groups, and owners of the Navajo Generating Station over visibility degradation pollution. This resulted in an agreement to install sulfur dioxide scrubbers at the plant. The project's share of the estimated construction cost of installing the scrubbers is approximately $124 million. The scrubbers will be installed and operational by 1999.

The CAWCD submitted a tort claim and filed a civil action against the United States on January 24, 1992, in the amount of $146.7 million for breach of contract due to the cost associated with repair and replacement of the corrosion damaged siphons. The Court of Federal Claims dismissed, without prejudice, the claims on December 14, 1992. The tort claim remains pending. Title XXXIX, Siphon Repair and Replacement, of Public Law 102-575, made 50 percent of the siphon repair costs nonreimbursable. Concurrent with the claims filed against the United States, similar claims were filed by the CAWCD against the original contractors and subcontractors of the siphons. The case was dismissed on September 13, 1994, because CAWCD was not a party to the contract. Reclamation studies determined that the primary cause of the siphon deterioration was defective wire used to reinforce the concrete pipe. On November 3, 1992, Reclamation issued a show cause letter to the original siphon contractor giving him until January 29, 1993, to submit a plan to resolve all issues. The contractor has denied responsibility. The final Contracting Officer's Decision was rendered September 28, 1995. Reclamation has completed repairs on two of the six siphons and is pursuing compensation from the initial contractor in the amount of $39.5 million. The total cost to repair all six siphons is estimated at $116 million.

On April 20, 1994, the U.S. Fish and Wildlife Service (FWS) issued its final Biological Opinion on the transportation and delivery of CAP water to the Gila River basin. The opinion concluded that long-term deliveries of CAP water would jeopardize the continued existence of four native threatened or endangered fish species. In order to avoid a jeopardy opinion by the Fish and Wildlife Service, it was agreed to implement measures identified as reasonable and prudent. The reasonable and prudent measures include construction of fish barriers, public education programs, and funding for research and conservation actions.

Appropriation ceiling

Appropriations authorized are $3,830,413,000 (October 1996). The comparable Federal obligation is $3,948,201,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation. Legislation to provide additional appropriation ceiling would be needed to complete the total project as authorized. Current estimated commitments are within the existing ceiling due to the indefinite deferral of the Upper Gila Division, Middle Gila Division, and Drainage System.

In response to the Office of the Inspector General audit recommendations to index the appropriation ceiling by project unit in its review of the Hoover Visitor Facilities Program, the CAP ceiling has been reexamined and reestimated by division. These divisions are the Hayden-Rhodes (Granite Reef) Division, Regulatory Storage (Orme) Division, Fannin-McFarland (Salt-Gila) Division, Tucson Division, Navajo Project, Upper and Middle Gila (Gila River) Divisions, Transmission Division, Indian Distribution System, Drainage System, Colorado River Division, Permanent Operating Facilities (General Property), and the Drainage System. Construction on the Upper and Middle Gila River Divisions and the Drainage System have been indefinitely deferred.

The FY 1997 Budget requests $71,728,000 for the CAP. The estimated future cost to complete work on all non-deferred divisions is $346,586,000. Expenditures for work on four CAP divisions have exceeded the divisional indexed appropriation ceiling. The divisions are: Regulatory Storage Division, Tucson Aqueduct, Navajo Project, and Indian Distribution Division.

Appropriations for Non-Indian Distribution Systems authorized by Section 309(b) of Public Laws 90-537 and 97-373 are $347,466,000 (October 1996). The comparable Federal obligation is $242,500,350. This authorization is adequate to cover the project as currently proposed.

Appropriations for the Safety of Dams Act portion of Roosevelt Dam are authorized by Public Laws 95-578 and 98-404. Total Federal obligations are estimated to be $138,487,000 (October 1996) for Safety of Dams work. The present authorized ceiling for Safety of Dams is adequate to cover this work as presently planned.

Work proposed for FY 1997

WATER DEVELOPMENT

Hayden-Rhodes Division - Work will continue on the siphon claim against the initial contractor, contract closeout activities and the recreation grant with the City of Phoenix. Work will be completed on the signal processing system. **$3,411,000**

Regulatory Storage Division - Awarded and completed at Waddell Dam will be the reservoir fence, wildlife fence repair, horse and bicycle trail along the canal, boat ramp extension, water well, right abutment access road, and replacement trails.

Ongoing work at New Waddell Dam includes the eagle nest warden mitigation activity and Cook's Lake mitigation improvements. Ongoing contracts at Roosevelt Dam include a contract for traveling museum exhibits, archeological studies as well as fish and wildlife mitigation activities including southwest willow flycatcher section 7 mitigation, bald eagle surveys and nest watch and Tonto Creek riparian monitoring and allottee management plan.

Work to be completed at New Waddell Dam consists of construction of the north entry road and boat ramps, electrical utilities, the Outdoor Center, utility systems and Desert Tortoise campgrounds, stream gaging program, Maricopa County interim relocations, fish and wildlife mitigation, and Roadrunner Campground. Work to be completed at Roosevelt Dam include the platform mound archeological study and recreation relocation and enhancement. **$13,174,000**

Middle Gila River Division - Activities are limited to coordinating with constituents when requested. Preconstruction and construction activities have been indefinitely deferred. **$10,000**

Upper Gila River Division - Activities are limited to coordinating with constituents when requested. Preconstruction and construction activities have been indefinitely deferred. **$10,000**

Tucson Division - Ongoing work includes rare plant survey for Tucson Reliability and fish and wildlife monitoring for the Tucson aqueduct. **$587,000**

Indian Distribution Division - Ongoing work includes funding of the Gila River Indian Community Self-Governance Annual Funding Agreement (AFA), fish & wildlife coordination activities and cultural resource activities for various tribes, land and rights activities for the San Carlos/Apache Tribe, and construction of the Schuk Toak New Farm distribution system. Mapping, design and environmental activities will be initiated for the Camp Verde Apache delivery system. Design and construction of the Tonto Apache delivery system will be initiated. Award and completion of the Pasqua Yaqui delivery system is scheduled. Administration of self-governance contracts and Public Law 92-638 contract administration will continue.	**$26,422,000**
Drainage System - Activities are limited to coordinating with constituents when requested. Preconstruction and construction activities have been indefinitely deferred.	**$10,000**
Permanent Operating Facilities - Completion and deficiency work related to the Supervisory Control System and the demobilization of the CAP field offices will be completed.	**$941,000**
Other Project Costs - A new award will be issued for riparian enhancement at Picacho reservoir. Operation and maintenance during construction for curation of project-wide artifacts will be initiated. Ongoing work includes the fish and wildlife coordination, non-native fish eradication, native fish conservation, Section 7 consultation on Santa Cruz River basin, Aravaipa fish barriers, San Pedro-Sierra Vista and Santa Cruz riparian and Agua Fria Wetlands enhancement projects. Preconstruction planning for the CAP artifacts repository will continue.	**$ 7,362,000**
SUBTOTAL - WATER DEVELOPMENT	**$51,927,000**

POWER DEVELOPMENT

Navajo Project Participation Agreement - Work to provide the Government's share of the sulfur dioxide scrubbers and the capital additions to the Navajo Generating Station and the associated transmissions system will continue.	**$25,887,000**
Non-Federal Cash Participation - For water and power development activities.	**$ - 4,251,000**
Non-Cash Participation - For recreation development at Lake Pleasant Regional Park located at New Waddell Dam and environmental enhancements for Other Project Costs.	**$ - 1,835,000**

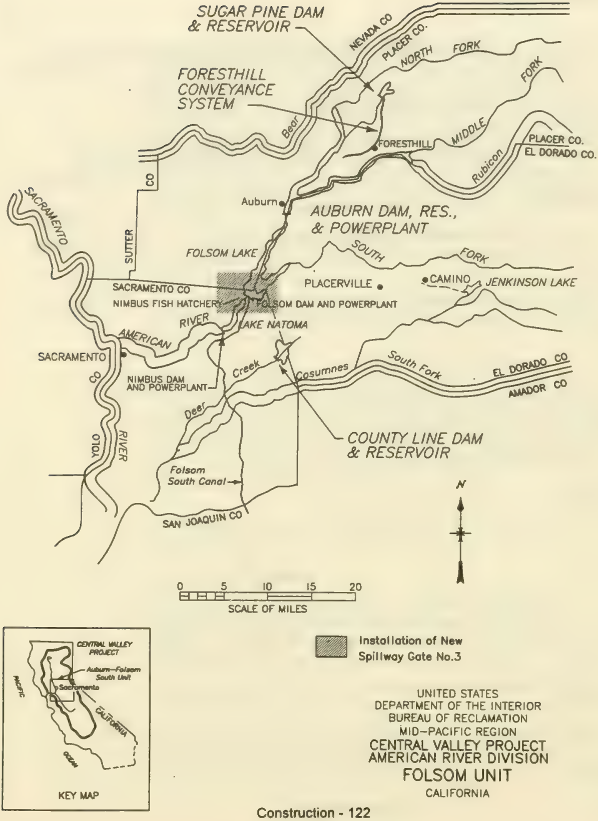
Central Arizona Project . . . .

TOTAL - LOWER COLORADO RIVER BASIN DEVELOPMENT FUND
$71,728,000

SAFETY OF DAMS DIVISION

Safety of Dams Division - Construction activities, as described under Regulatory Storage Division, will continue on Modified Roosevelt Dam.
$5,679,000

Non-Federal Cash Participation	**$ -761,000**
SUBTOTAL - SAFETY OF DAMS DIVISION	**$ 4,918,000**
Total request	**$76,646,000**



Construction - 122

Central Valley Project
American River Division
California

Location This unit is located in the east-central part of the Sacramento-San Joaquin Valley in El Dorado, Placer, Sacramento, and San Joaquin Counties, California.

Description Folsom Dam, constructed by the U.S. Army Corps of Engineers and transferred to Reclamation in 1956, with a height of 340 feet and a crest length of 1,400 feet and a capacity of 1,010,000 acre-feet is flanked by long earthfill wing dams extending from the end of the concrete section on both abutments; Folsom Powerplant, with a capacity of 212,220 kilowatts is located at the foot of Folsom Dam on the north side of the river. Nimbus Fish Protection Facility is located about 0.3 mile below the Nimbus Dam on the American River 7 miles below Folsom Dam. The fish facility was built by Reclamation and is operated by the State of California with funds advanced each year by Reclamation. El Dorado Distribution System includes the water treatment facilities and distribution system and is for irrigation and municipal purposes. These facilities are located in western El Dorado County and were built by Reclamation and are operated by El Dorado Irrigation District. The unit provides supplemental water to 23,115 acres and 282,940 acre-feet annually for municipal and industrial use. The power has a capacity of 212,220 kilowatts.

See Other Information section for discussion of Folsom Dam Spillway Gate repairs.

Authorization Public Law 81-356, American River Basin Development, October 14, 1949. Public Law 102-377, Section 201, Fiscal Year 1993 Energy and Water Development Appropriation Act, October 2, 1992.

Land certification July 20, 1967.

Definite plan report To be completed as required.

Benefit cost ratio as of October 1, 1996 A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units.

Completion data As of September 30, 1995, Folsom Unit, American River Division is 91 percent complete.

CVP, American River Division . . . .

Summarized Financial Data

Total Federal obligations 1/	$161,961,482	Allotments to 9/30/95	$135,961,482
		Allotments for FY 1996 2/	15,000,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	141,961,482
Non-Federal participation	- 0 -	Allotments for FY 1997	11,000,000
Adjustment	- 0 -		
Total to be allocated	$161,961,482	Balance to complete	$ - 0 -

1/ The best estimate of total cost to effect repairs related to the 1995 spillway gate failure is $31 million, of which $5 million was expended using emergency transfer authority in FY 1995.

2/ Includes $9,000,000 which is being requested through reprogramming, or from the FY 1996 Supplemental Appropriations Bill.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Power	- 0 -	$29,150,000
Municipal and industrial water	- 0 -	23,420,000
Irrigation	- 0 -	86,441,000
Fish and wildlife	- 0 -	- 0 -
Flood control	- 0 -	5,417,000
Recreation	- 0 -	200,000
Safety of Dams	- 0 -	17,333,000
Adjustments 1/	- 0 -	482
Total	$ - 0 -	$161,961,482

1/ Rounding.

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to Congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

Project Repayment

Repaid by	Amount
M&I water users	$23,420,000
Irrigators	86,441,000
Power users	29,150,000
State and local entities 1/	100,000
Non-reimbursable 2/	22,850,000
Adjustments 3/	482
Total	$161,961,482

1/ Includes $100,000 for El Dorado Irrigation District's share of costs of recreation on facilities at Sly Park Reservoir.

2/ Includes $100,000 for recreation facilities at Sly Park Reservoir and $5,417,000 for flood control, and $17,333,000 for safety of dams program activities completed for Folsom Dam under the Reclamation Safety of Dams Act of 1978, November 2, 1978 (Public Law 95-578), as amended in 1984 by Public Law 98-404..

3/ Rounding.

Status of repayment contract Costs to be repaid by the municipal and industrial water users and irrigators will be recovered through the sale of project water under existing and potential Central Valley Project water service contracts.

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance El Dorado Distribution System, May 22, 1974. Other NEPA compliance will be completed as required.

Other information On July 17, 1995, one of eight spillway gates at the Folsom Dam, California failed resulting in an uncontrolled flow of 40,000 cubic feet per second from the reservoir. Using the Secretary of Interior's emergency authority, $5 million was made available, and work began in FY 1995 to remove the damaged gate, conduct tests to determine the cause of failure and assess the condition of the other seven gates.

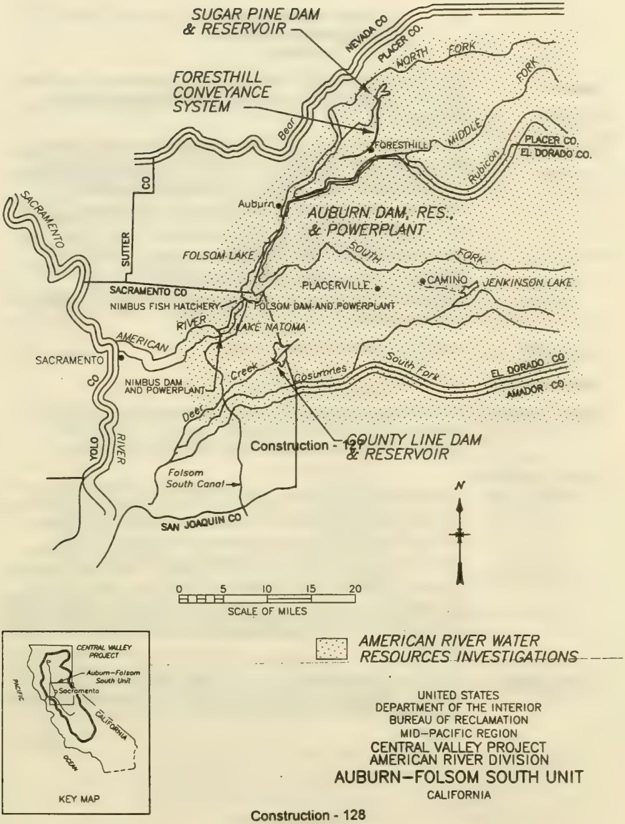
In the Conference Report accompanying the FY 1996 Energy and Water Development Appropriations Act, Congress provided for $6 million within available funds to continue the work. These funds were used for: fabrication and installation of stoplogs, which allowed work on the gates to proceed; removal and forensic analysis of the failed gate; and inspection, analysis, and partial strengthening of the seven remaining gates for flood control operations in 1995 - 1996.

The forensic analysis of the failed gate has identified additional strengthening requirements for the seven remaining gates. Additional funds of $9 million are expected to be provided in an FY 1996 emergency supplemental for the fabrication and installation of a replacement for the failed gate, and for strengthening the seven remaining gates to operate safely during normal and flood conditions. This work will be done under a new contract starting in the Spring of 1996 and continuing into FY 1997 .

Appropriation ceiling Not applicable.

Work proposed for FY 1997 **Folsom Dam Gate Repairs** - Replacement of the failed Gate No. 3 will complete. Spillway repair, road work, and stilling basin repair will be completed.

Total request	**$11,000,000**



Construction - 128

Central Valley Project
Auburn-Folsom South Unit
California

Location	This unit is located in the east-central part of the Sacramento-San Joaquin Valley in El Dorado, Placer, Sacramento, and San Joaquin Counties, California.
Description	As an integral part of the Central Valley Project, the unit would develop water and power supplies for delivery to users located in the unit service area and elsewhere in the project service area. The unit would provide full irrigation service to 28,300 acres, supplemental irrigation service to 416,050 acres, and 332,000 acre-feet annually for municipal and industrial use. The power installation at Auburn would have an initial capacity of 300,000 kilowatts, consisting of two units of 150,000 kilowatts each, with provisions for ultimate development of the hydroelectric capacity, now estimated to consist of an additional two units of 150,000 kilowatts each. The installation of the ultimate capacity would require additional authorization. This unit would also provide recreation, fish and wildlife, and flood control benefits.
Authorization	Public Law 89-161, September 2, 1965.
Land certification	July 20, 1967.
Definite plan report	To be completed as required. Initial power delivery is dependent upon completion of the Folsom South-Lower American River Studies and legislation amending the Auburn-Folsom South Unit Act of 1965.
Benefit cost ratio as of October 1, 1996	A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).
Completion data	Water is now available from the first 27 miles of the Folsom South Canal. In addition, Sugar Pine Dam and the Foresthill conveyance system have been completed. As of September 30, 1995, the project is 27 percent complete.

CVP, Auburn-Folsom South Unit . . . .

Summarized Financial Data

Total Federal obligations	$2,394,762,000	Allotments to 9/30/95	$356,668,481
		Allotments for FY 1996	1,357,000
Net property and other transfers			
Federal participation	890,554	Allotments to date	358,025,481
Non-Federal participation 1/	2,605,084	Allotments for FY 1997	2,500,000
Adjustment 2/	362		
Total to be allocated	$2,398,258,000	Balance to complete	$2,034,236,519

1/ Represents cash contribution from Sacramento Metropolitan Water Authority to meet the non-federal cost-sharing requirement for feasibility-level planning report/environmental impact statement on alternative multipurpose plans for water and power development in the American River Basin.

2/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$231,027,000	$231,994,786
Irrigation	1,410,906,000	1,416,815,000
Deferred use 1/	2,425,000	2,425,000
Power	475,796,000	477,789,000
Fish and wildlife	151,222,000	151,855,000
Recreation	23,691,000	23,783,000
Flood control	88,418,000	88,788,000
Preconstruction investigations 2/	4,700,000	4,808,214
Total	$2,388,185,000	$2,398,258,000

1/ Actual cost of providing additional capacity in the completed portion of the Folsom South Canal (Reaches 1 and 2) to serve the planned East Side Division service area.

2/ Estimated cost of feasibility-level planning report/environmental impact statement on alternative multipurpose plans for water and power development in the American River Basin. Planning report and environmental documents are prepared at the request of the Sacramento Metropolitan Water Authority for submittal to the Congress.

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this unit will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net increase in the total cost to be allocated of $10,073,000 includes $5,098,000 for indexing to October 1996 projected prices; $3,400,000 for Restoration of the River Channel, $2,222,569 for Interim Resource Management, $1,406,983 for Placer County Pump Rehabilitation, $260,000 for Land Rights, $113,482 for Flood Damage Repairs, $66,504 for Mountain County Coordination Act, and $65,468 for Fire Protection-State Forestry, $108,214 for reevaluation of the American River Alternative Study, and $191 for rounding; partially offset by decreases of $1,403,140 for re-evaluation of contingency requirements, and $1,265,271 for cancellation of the seismograph network contract.

Project Repayment

Repaid by	Amount
M&I water users	$231,994,786
Irrigators	1,416,815,000
Deferred use 1/	2,425,000
Power users	477,789,000
State and local entities 2/	10,979,000
Non-reimbursable 3/	258,255,214
Total	$2,398,258,000

1/ Actual cost of providing additional capacity in the completed portion of the Folsom South Canal (Reaches 1 and 2) to serve the planned Eastside Division service area, as authorized under Section 1, Public Law 89-161.

2/ Includes $8,374,000 for State of California, Department of Parks and Recreation (50 percent of current estimate of cost of planned Auburn Lake recreation facilities); and $2,605,000 for cash contribution from Sacramento Metropolitan Water Authority (non-federal share of estimated cost of feasibility-level planning report/environmental impact statement on alternative multipurpose plans for water and power development in the American River Basin).

3/ Includes $151,855,000 for fish and wildlife, $15,409,000 for recreation, $88,788,000 for flood control, and $2,203,214 for preconstruction investigations.

Status of repayment contract Contracts have been executed with East Bay Municipal Utility District, Sacramento Municipal Utility District, Foresthill Public Utility District, and Placer County Water Agency. Negotiations will continue with Central San Joaquin Water Conservation District, North San Joaquin Water Conservation District, Sacramento County Water Agency, San Joaquin County Flood Control and Water Conservation District, Stockton-East Water District, Woodbridge Irrigation District, and Woodbridge Water Users

Conservation District for water from Folsom South Canal upon the completion and implementation of the Central Valley Project water management program and completion of appropriate National Environmental Policy Act documentation.

No repayment contracts have been negotiated to date for remaining unconstructed facilities on the Auburn-Folsom South Unit; negotiations with the water users will be renewed upon the completion and implementation of the Central Valley Project water management program and completion of appropriate National Environmental Policy Act documentation.

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance A projectwide final environmental statement was filed with Council on Environmental Quality November 13, 1972. Supplement to final filed with Council on Environmental Quality August 6, 1973, Amendment to final filed with Council on Environmental Quality September 20, 1974. Supplemental No. 2 filed with Environmental Protection Agency September 23, 1980. Foresthill Divide area final environmental statement was filed with Council on Environmental Quality May 25, 1976. A feasibility-level planning/report environmental impact statement for exploring multipurpose alternative sources for water and power development in the American River Basin has been initiated. Draft Environmental Impact Statement was completed in February 1996 with the final scheduled for June 1996.

Other information The National Resources Defense Council, Inc. vs. Stamm, Case No. S-2663 in the U.S. District Court, Eastern District of California, was filed in December 1972. By order of the court in 1974, in the above case, the Bureau of Reclamation was ordered to notify the court and all parties to that action as soon as the decision is made by the Secretary of the Interior to construct Reaches 3, 4, or 5 of the Folsom South Canal and not to commence such construction until at least 60 days after said notice is given nor can he acquire any lands for that construction or enter into any water service contracts for American River Division water.

A major earthquake on August 1, 1975, with the epicenter near Oroville Dam in northern California raised safety questions that prompted extensive investigations of the Foothills fault system and the Auburn Dam area. In FY 1987, the Bureau of Reclamation initiated a Folsom South Area Conjunctive Use Study to evaluate plans for concurrent use of the groundwater basin and existing storage developments on streams tributary, adjacent to and within the Folsom South area to meet the service area needs and provide suitable flows in the Lower American River.

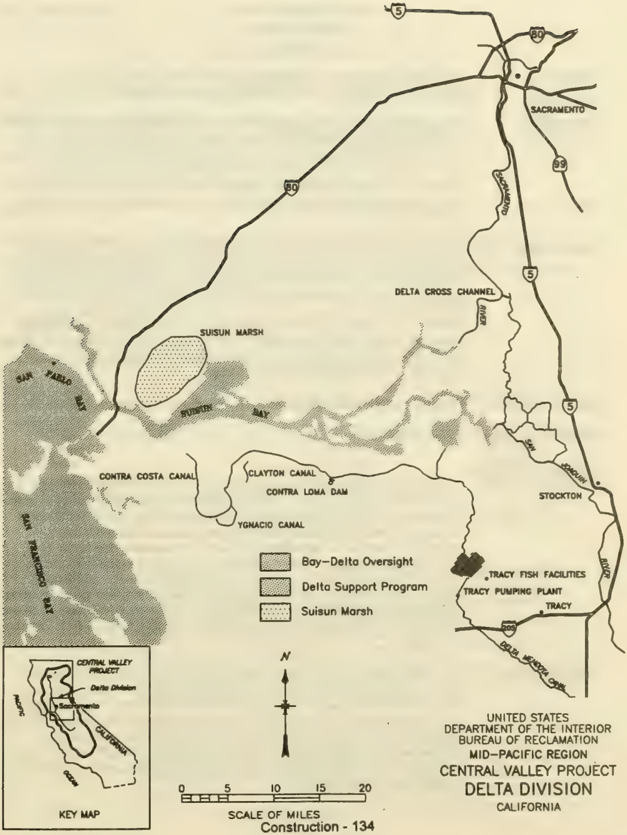
Appropriation ceiling

Appropriations authorized are $1,563,917,000 (October 1996). The comparable Federal obligation is $2,394,762,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation. Appropriate congressional committees will be advised of the ceiling status for this project. Legislation to provide additional appropriation ceiling would be needed to complete the project as authorized. Current commitments will be held within existing ceiling.

Work proposed for FY 1997

Auburn Dam and Reservoir - Processing water rights applications and miscellaneous agreements with the State and local agencies for management of project lands, and providing fire protection and seismograph work will continue. Work will begin on construction of the replacement of the Placer County Water Agency's pumping plant with the intent of restoring the original river channel and riparian vegetation. $2,500,000

Total request	**$2,500,000**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CLAYTON CANAL
CONTRA LOMA DAM
YGNACIO CANAL
STOCKTON
SAN FRANCISCO BAY
▨ Bay–Delta Oversight
▨ Delta Support Program
⬚ Suisun Marsh
TRACY FISH FACILITIES
TRACY PUMPING PLANT
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SCALE OF MILES
Construction - 134
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MID–PACIFIC REGION
CENTRAL VALLEY PROJECT
DELTA DIVISION
CALIFORNIA

Central Valley Project
Delta Division
California

Location This division is located in Alameda, Contra Costa, Fresno, Merced, Sacramento, and Stanislaus Counties in central California.

Description As an integral part of the Central Valley project, this division delivers water and power supplies developed in the American River, Shasta and Trinity River divisions to the areas served by the Delta Division, San Luis Unit and San Felipe Division. The Delta Division provides full irrigation service to 45,648 acres, supplemental irrigation service to 181,582 acres, and 100,104 acre-feet annually for municipal and industrial use in the division service area.

Authorization Emergency Relief Appropriation Act of 1935, April 8, 1935. The Central Valley Project was authorized by a finding of feasibility by the Secretary of the Interior, and approved by the President on December 2, 1935; Public Law 392, Rivers and Harbors Acts of 1937, August 26, 1937; Public Law 868, Rivers and Harbors Act of 1940, October 17, 1940; Public Law 99-546, Coordinated Operations Agreement, Suisun Marsh Preservation Agreement and Small Reclamation Projects Act of 1986, October 27, 1986; and Public Law 102-575, Reclamation Projects Authorization and Adjustment Act of 1992, October 30, 1992.

Land certification The projectwide land certification was completed on July 23, 1982.

Definite plan report To be completed as required.

Benefit cost ratio as of October 1, 1996 A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).

Completion data As of September 30, 1995, the Delta Division was 56 percent complete. Substantial increases due to the reevaluation of the estimated contract value for the Delta Barrier program, Tracy Pumping Plant, Tracy Facilities, and Georgiana Slough/Delta Cross Channel resulted in the decrease in the percent complete as presented in the FY 1996 Budget Justifications. Completed and operational major features include: Tracy Pumping Plant and Switchyard, Delta Cross Channel, Delta Mendota Canal, and the Contra Costa Canal System.

CVP, Delta Division . . . .

Summarized Financial Data

Total Federal obligations	$394,940,000	Allotments to 9/30/95	$171,576,419
		Allotments for FY 1996	6,080,000
Net property and other transfers			
Federal participation	3,264,566	Allotments to date	177,656,419
Non-Federal participation 1/	- 0 -	Allotments for FY 1997	8,850,000
Adjustment 2/	434		
Total to be allocated	$398,205,000	Balance to complete	$208,433,581

1/ Represents State of California participation in the construction of the Delta Barriers. The cost-sharing agreement with the State of California for Central Valley Project Improvement Act, Section 3406, was signed on June 27, 1994. Non-federal participation will be reflected when individual task orders have been finalized.

2/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$29,226,000	$29,314,000
Irrigation	107,872,000	108,203,000
Power	36,377,000	36,489,000
Fish and wildlife	181,446,000	217,213,000
Recreation	205,000	205,000
Flood control	6,760,000	6,781,000
Total	$361,886,000	$398,205,000

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net increase in the total cost to be allocated of $36,319,000 includes increases of $22,177,493 due to indexing to October 1996 prices, $3,962,000 for Delta Barriers' contract costs, $12,145,000 for Temporary Barrier contract costs, $3,294,000 for Tracy Pumping Plant costs, $2,847,507 for Bay-Delta Oversight contract costs, $552,000 for Suisun Marsh Protection contract costs, $147,805 for potable waterlines system contract costs, $54,657 for Tracy Pumping Plant Excitation System contract costs, $46,384 for IESP (Delta Support) contract costs, $34,570 for domestic water treatment plant contract costs, $520 for rounding and $98 for Georgianna Slough/Delta Crossing Channel contract costs, offset by a decrease of $7,332,000 for Contra Costa Facility contract costs, $1,230,698 for reevaluation of contingency requirements, and $380,336 for Tracy Switchyard Circuit Breakers contract costs.

Project Repayment

Repaid by	Amount
M&I water users	$29,314,000
Irrigators	108,203,000
Power users	36,489,000
State and local entities 1/	54,408,000
Nonreimbursable 2/	169,791,000
Total	$398,205,000

1/ Includes $54,303,000 for State of California share of costs of fish and wildlife activities authorized under the Central Valley Project Improvement Act (Public Law 102-575); and, $105,000 for East Bay Regional Parks District share of costs of recreation facilities at Contra Loma Reservoir.

2/ Includes $162,910,000 for fish and wildlife, $100,000 for recreation, and $6,781,000 for flood control.

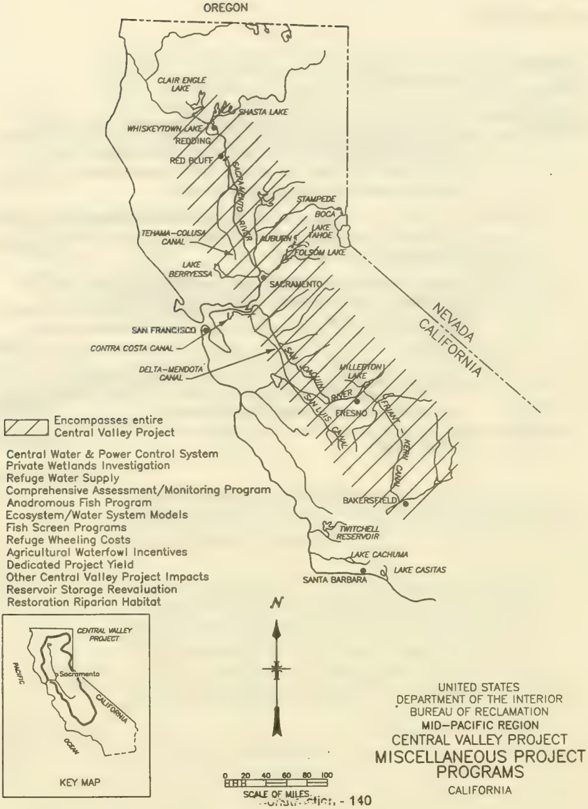
Status of repayment contract To date, 22 contracts for water service have been executed (the reduction from the FY 1996 Budget Justifications is a result of combining 9 small contracts into one). Contracts for the construction of two distribution systems have been executed.

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance Will be completed as required.

CVP, Delta Division . . . .

Appropriation ceiling	Not applicable.	
Work proposed for FY 1997	**Fish Screen at Rock Slough** - Continue planning and design studies leading to improved cost data and construction schedules for at least three fish screening options for the intake. Environmental analysis and documentation activities, acquisition of various required permits and other regulatory agency coordination will be initiated.	$ 250,000
	Suisun Marsh - Represents Federal share in the construction by the State of California of facilities for protection and preservation of Suisun Marsh as provided by Public Law 99-546.	1,000,000
	Delta Support Program (IEP) - The program to identify and monitor the impacts to the Sacramento-San Joaquin Delta of operating both the Federal Central Valley Project and the California State Water Project and to define new design and operating criteria to minimize such impacts will continue.	3,500,000
	Bay-Delta Oversight - Implementation of a long-term solution to environmental and natural resources problems in the San Francisco Bay and Sacramento-San Joaquin Delta will continue.	4,100,000
	Total request	**$8,850,000**


OREGON
CLAIR ENGLE LAKE
SHASTA LAKE
WHISKEYTOWN LAKE
REDDING
RED BLUFF
SACRAMENTO RIVER
STAMPEDE
BOCA
LAKE TAHOE
TEHAMA-COLUSA CANAL
AUBURN
FOLSOM LAKE
LAKE BERRYESSA
SACRAMENTO
NEVADA
CALIFORNIA
SAN FRANCISCO
CONTRA COSTA CANAL
DELTA-MENDOTA CANAL
SAN JOAQUIN RIVER
MILLERTON LAKE
FRESNO
SAN LUIS CANAL
FRIANT - KERN CANAL
BAKERSFIELD
TWITCHELL RESERVOIR
LAKE CACHUMA
LAKE CASITAS
SANTA BARBARA
Encompasses entire Central Valley Project
Central Water & Power Control System
Private Wetlands Investigation
Refuge Water Supply
Comprehensive Assessment/Monitoring Program
Anadromous Fish Program
Ecosystem/Water System Models
Fish Screen Programs
Refuge Wheeling Costs
Agricultural Waterfowl Incentives
Dedicated Project Yield
Other Central Valley Project Impacts
Reservoir Storage Reevaluation
Restoration Riparian Habitat
CENTRAL VALLEY PROJECT
Sacramento
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KEY MAP
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SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MID-PACIFIC REGION
CENTRAL VALLEY PROJECT
MISCELLANEOUS PROJECT PROGRAMS
CALIFORNIA

Central Valley Project
Miscellaneous Project Programs
California

Location	This program encompasses the entire Central Valley of California for those activities not reported under a separate project data sheet. The boundary extends from the Cascade Range in the north to the fertile plains along the Kern River in the south.
Description	As an integrated part of the Central Valley Project, these programs deliver water and power supplies developed by the American River Division to users located in the areas served by the American River, Delta and San Felipe divisions and the San Luis Unit. In addition, water supplies are delivered which were developed by the Friant Division to users located in the Friant Division service area. The Miscellaneous Project Programs provide supplemental irrigation service to 989,505 acres and 61,790 acre-feet annually for municipal and industrial use in the areas served by the Friant Division, and provide fish and wildlife and flood control benefits.
Authorization	Emergency Relief Appropriation Act of 1935, April 8, 1935. The Central Valley Project was authorized by a finding of feasibility by the Secretary of the Interior, and approved by the President on December 2, 1935; Public Law 392, Rivers and Harbors Acts of 1937, August 26, 1937; Public Law 868, Rivers and Harbors Act of 1940, October 17, 1940; Public Law 87-874, River and Harbors Act of 1962 (Flood Control Act), October 23, 1962; Public Law 91-502, Black Butte Integration Act, October 23, 1970; Public Law 94-423, Reclamation Authorization Act of 1976, September 28, 1976; Public Law 99-546, Coordinated Operations Agreement, Suisun Marsh Preservation Agreement and Small Reclamation Projects Act of 1986, October 27, 1986; and, Public Law 102-575, Reclamation Projects Authorization and Adjustment Act of 1992, October 30, 1992.
Land certification	The Friant Division land certification was completed on June 4, 1982.
Definite plan report	Will be completed as required.
Benefit cost ratio as of October 1, 1996	A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).

CVP, Miscellaneous Project Programs . . . .

Completion data As of September 30, 1995, the Miscellaneous Project Programs is 69 percent complete. This is a decrease from the percentage presented in FY 1996 Budget Justifications; the decrease is a result of a large increase in the estimated costs of fish and wildlife activities, and from presentation of the Folsom Unit, American River Division, as a separate program in the FY 1997 budget.

Major features that are completed and operational include the Friant Dam and Reservoir, Friant-Kern Canal, Madera Canal, and Friant-Kern and Madera distribution systems.

Summarized Financial Data

Total Federal obligations	$543,459,000	Allotments to 9/30/95	$213,888,615
		Allotments for FY 1996	22,048,000
Net property and other transfers			
Federal participation	14,320,562	Allotments to date	$235,936,615
Non-Federal participation 1/	2,260,000	Allotments for FY 1997	35,676,000
Adjustment 2/	438		
Total to be allocated	$560,040,000	Balance to complete	$271,846,385

1/ Includes $2,250,000 from State of California for the Refuge Water Supply; and $5,000 from Big Valley Irrigation District, $2,500 from Modoc County, and $2,500 from Lassen County as contributions towards the cost of the preconstruction investigations for the Allen Camp Unit, Pit River Division.

2/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$39,977,000	$23,351,000
Irrigation	147,557,000	86,194,000
Power	49,760,000	29,067,000
Fish and wildlife	169,403,000	337,864,000
Recreation	254,000	54,000
Flood control	9,247,000	5,402,000
Archaeological preservation	3,000	3,000
Preconstruction investigations	78,105,000	78,105,000
Safety of dams	17,333,000	0
Total	$511,639,000	$560,040,000

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net increase in total cost to be allocated of $48,401,000 includes increases of $43,447,543 to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions, $35,600,316 for increasing anadromous fish wild stocks by FY 2002, $34,148,172 for refuge contract costs, $20,228,722 for planning documents/Environmental Impact Statement for refuge water supply, $15,624,426 for payment of refuge wheeling costs, $15,125,525 due to reevaluation of requirements for implementing a monitoring and assessment program, $9,689,452 for Water Conservation projects, $5,000,000 for other associated adverse environmental impacts on the Central Valley Project, $2,625,000 for restoration of riparian habitat due in part to a loss of appropriate rearing habitat in the upper Sacramento, American, and Stanislaus Rivers, $1,485,378 for managing annually 800,000 acre-feet of Central Valley Project Yield for restoration purposes, $859,000 as a result of including Tracy Circuit breakers as a part of Miscellaneous Project Programs, $783,366 as a result of the CVPIA Forum meetings, $750,000 for investigating supplemental water needs on privately owned wetlands, $742,000 for fourth year funding of a water conservation challenge grant program, $611,660 due to escalation of contract costs for measuring project fishery impacts, $500,000 in order to provide management objectives of the Reservoir Storage Program, $445,968 for implementing a flow fluctuation program to decrease losses of anadromous fish, $428,000 due to indexing to October 1996 prices, $354,097 as a result of including Tracy Pumping Plant Excitation, $187,476 for the Salmon Stamp Program, $185,901 for Delta Support Program, $59,800 to administer the Kaweah Enhancement grant program, $6,770 for reevaluation of archeological requirements at New Melones, $636 for rounding, $170 for the Coho Salmon Program, $160 for the Shasta Temperature Control Device, $98 as a result of including the Barriers-Georgiana Slough, and $4 for the Spring Run Salmon program.

The above costs are partially offset by a decrease of $130,845,159 due to presenting the Folsom Unit, American River Division as a separate program in the FY 1997 budget, $5,407,941 due to outyear funding adjustments for the Agricultural Waterfowl Incentive Program, $3,191,830 for contingency requirements, $992,156 for Ecosystem/Water System models, and $51,554 for the CVP Water Augmentation Study.

Project Repayment

Repaid by	Amount
M&I water users	$23,351,000
Irrigators	86,194,000
Power users	29,067,000
State and local entities 1/	80,958,000
Nonreimbursable 2/	340,470,000
Total	$560,040,000

1/ Includes $26,000 for County of Fresno share of costs of recreation facilities at Lake Woollomes; $10,000 of contributions by non-Federal, local entities towards cost of preconstruction investigations completed for the Allen Camp Unit, Pit River Division, and $80,922,000 for State of California share of costs of fish and wildlife activities authorized under the Central Valley Project Improvement Act (Public Law 102-575).

2/ Includes $256,942,000 for fish and wildlife; $28,000 for recreation facilities at Lake Woollomes in Fresno County, California; $5,402,000 for flood control; $3,000 for preservation of historical and archaeological data under the Act of June 27, 1960 (Public Law 86-523); and $78,095,000 for preconstruction investigations.

Status of repayment contract To date, 11 contracts for water service have been executed (the reduction from the FY 1996 budget is a result of combining many small contracts into one).

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown below.

Summary of Irrigation Investment

Total irrigation investment per acre 1/	$1,930
Repayment of irrigation investment per acre by:	
Irrigators	$1,930
Payment capacity per acre-foot 2/	$8.00 to$47.50
Annual charges per acre-foot 3/	
Construction	2.25 to 14.15
Operation and maintenance	5.44 to 19.50
Deficit	.03 to 2.80
Total Cost of Service	$7.72 to 36.46

1/ Based on 1,869,655 acres in the project service area that were irrigated with water supplied by the Central Valley Project in 1992, as reported in Reclamation's 1992 Crop Production Report.

2/ Range of irrigators' ability to pay estimates for lands that are irrigated with water supplied by the Central Valley Project. Payment capacity depends on the value of the crops grown, productivity of the soils, and length of the growing season. Because these factors improve as one moves from north to south, the irrigators' ability to pay improves as one moves from the northern portion to the southern and coastal portions of the project service area. Coincidentally, the cost of delivering project water supplies developed in the north increases as the water is moved southward to irrigators located in the southern and coastal portions of the project service area.

3/ Irrigation water rates are based on actual costs and expressed in terms of dollars per acre-foot scheduled for delivery during the current year. Cost of service rates for all the individual contractors are adjusted annually to reflect changes in project costs and available water supplies. Annual charges shown above are the lowest and highest cost of service rates calculated for the individual contractors in Reclamation's 1996 CVP Irrigation Water Rates, dated December 1995.

Status of NEPA compliance El Dorado Distribution System, May 22, 1974. NEPA compliance was not required for Friant-Kern Canal. Other NEPA compliance will be completed as required.

Other information Additional features have been included as a result of Public Law 102-575, October 30, 1992, Title XXXIV.

Appropriation ceiling Not applicable.

Work proposed for FY 1997 **CONSTRUCTION PROGRAM**

Centralized Water and Power Control System - Contract will continue for modernization of the system. **$2,500,000**

CVP, Miscellaneous Project Programs . . . .

Refuge Water Supply - Section 3406(d). Implementation of conveyance plans for water supplies for full habitat management to seven refuge boundaries will be initiated along with possible construction of conveyance facilities. The environmental compliance document will be completed in FY 1996 and design work for conveyance facilities will be initiated in FY 1996 and with a staggered schedule extending through FY 1999. Negotiations with the California Department of Fish and Game and the Grassland Resource Conservation District for interim water service contract and execution of temporary agreements for conveyance of refuge water supplies with various other water districts will be undertaken. Fifty percent of the water needed for full habitat management is scheduled for conveyance in FY 1997. An implementation plan will be subsequently developed to assure accomplishment by 2002. **$ 5,000,000**

Ecosystem/Water System Models - Section 3406(g). Work will continue on the development of easily usable and readily available hydrologic and ecosystem models to provide crucial input to several on-going studies in the Central Valley. **$ 950,000**

Fish Screen Programs - Section 3406 (b) (21). This program is directed to assist the State of California's efforts to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on selected Central Valley rivers and tributaries. These measures include construction of screens on unscreened diversions, rehabilitation of existing screens, replacement of existing non-functioning screens, and relocation of diversions to less fishery-sensitive areas. Focus on this effort over the next five years, will be to screen about 100 diversion sites. **$ 3,000,000**

Water Conservation - Section 3408 (i). This program will provide for cost share funding of projects and measures that increase water-use efficiency, resulting in a net water savings with Reclamation's share of the conserved water being used for fish and wildlife habitat restoration to meet the Secretary's obligations under the Act. Only non-reimbursable funds can be used to implement this section of the Act. **$ 2,650,000**

Subtotal, Regular Construction **$14,200,000**

RESTORATION FUND

Comprehensive Assessment/Monitoring Program - Section 3406(b) (16). This will be the third year of funding for implementing a monitoring and assessment program to determine the degree of effectiveness of the various fish and wildlife restoration activities that have been accomplished and identify and implement additional changes or actions that may be required to enhance and restore fish and wildlife habitat resources. A comprehensive assessment program according to Public Law 102-575 will be established as needed, and reviewing the adequacy of existing monitoring efforts will be continued. **$2,312,000**

Anadromous Fish Program - Section 3406(b) (1). Populations of salmon have declined over fifty percent since the 1950's in Central Valley streams and rivers. In view of this and subsequent declines in other anadromous fish species, the CVPIA requires (within 3 years) the development and implementation of a plan to increase the populations of anadromous fishes in the Central Valley. The purpose of this program is to increase populations of select wild stocks of anadromous fishes by 2002 to at least twice the average level from 1967 to 1991. A draft Anadromous Fish Restoration Plan was released for public review and comment in mid-December 1995. A final plan is scheduled for release in March, 1996. Upon completion of the Plan, implementation actions will be initiated based on the stated goals and schedules outlined in the completed plan. **$8,000,000**

Refuge Wheeling Costs - Section 3406(d). Water Districts and the California Department of Water Resources will continue to be paid wheeling costs to convey water to refuges and wildlife habitat boundaries. Water Districts within the State of California and the California Department of Water Resources will be reimbursed for all interim wheeling costs associated with delivery of water to wildlife refuges. A comprehensive plan will be initiated to provide for long-term delivery to the refuges. **$2,000,000**

Refuge Water Supply - Section 3406(d). Implementation of conveyance plans for water supplies for full habitat management to seven refuge boundaries will be initiated along with possible construction of conveyance facilities. The environmental compliance document will be completed in FY 1996 and design work for conveyance facilities will be initiated in FY 1996 and with a staggered schedule extending through FY 1999. Negotiations with the California Department of Fish and Game and the Grassland Resource Conservation District for interim water service contract and execution of temporary agreements for conveyance of refuge water supplies with various other water districts will be undertaken. Fifty percent of the water needed for full habitat management would is scheduled for conveyance in FY 1997. An implementation plan will be subsequently developed to assure accomplishment by 2002. **$3,000,000**

Agricultural Waterfowl Incentives - Section 3406(b)(22). Wetland habitats and associated values within the Central Valley have decreased drastically due in part to project operations and their cumulative impacts. Incentives will be provided to farmers encouraging participation in a program to keep fields flooded during appropriate time periods for the purpose of waterfowl habitat creation and maintenance and for water yield enhancement. The goal for FY 1997 is to continue to implement the incentive program upon completion of environmental compliance requirements. Completion is scheduled in FY 2002. **$1,239,000**

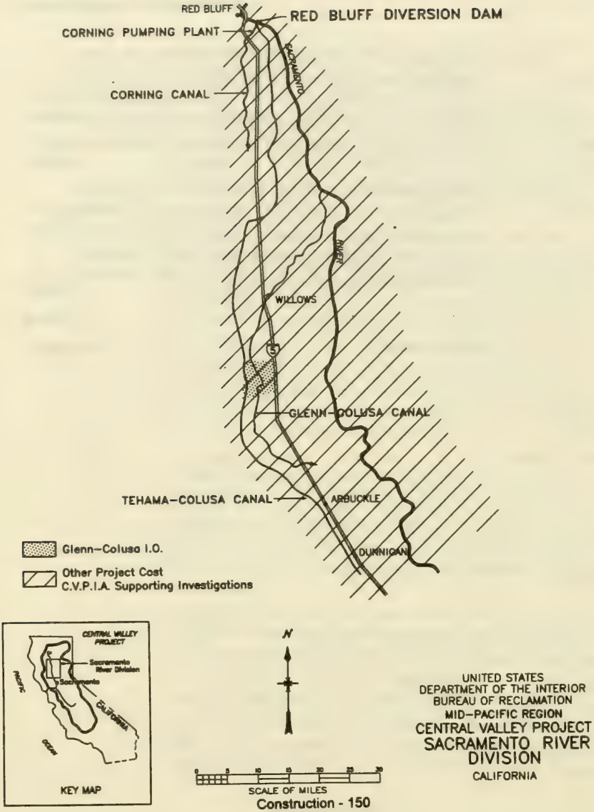
Private Wetlands Investigation - Section 3406(d) (6). Investigate and review the reliability and quality of water supplies available to privately owned wetlands and determine the need, if any, for supplemental water. In addition, the water supply and delivery requirements for 120,000 acres of restored wetlands will be reviewed. A report on supplemental actions to accomplish any program requirements will be accomplished by September 30, 1997. **$500,000**

Dedicated Project Yield - Section 3406(b) (2). Development of a conceptual plan for the long-term use of the dedicated 800,000 acre-feet will be completed in FY 1997 which will include an accounting program for the 800,000 acre-feet. Rules and regulations will be promulgated for the management of the 800,000 acre-feet. In addition, assistance will be given to the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. As new information becomes available, stream flow objectives will be reviewed and revised. A relatively high level of funding will be needed until rules and regulations have been promulgated and management of the dedicated yield is incorporated into routine project operations over the long term. Thereafter, funding for coordination, review of effectiveness, and modification of use patterns will be required. **$450,000**

Fish Screen Programs - Section 3406 (b) (21). This program is directed to assist the State of California's efforts to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on selected Central Valley rivers and tributaries. These measures include construction of screens on unscreened diversions, rehabilitation of existing screens, replacement of existing non-functioning screens, and relocation of diversions to less fishery-sensitive areas. Focus on this effort over the next five years, will be to screen about 100 diversion sites. **$2,000,000**

Other Central Valley Project Impacts - Section 3406 (b) (1). In conjunction with developing and implementing the anadromous fish restoration program the Secretary is directed to make all reasonable efforts to address other identified adverse environmental impacts of the Central Valley Project not specifically enumerated in the section. To this extent, initial efforts will focus on implementation of priority needs identified as a result of the interim contract renewal consultation. Projects which could be funded include identification and protection of habitat suitable for the conservation of listed and proposed riparian and aquatic species which are recognized as resolving identified impacts of the Central Valley Project. **$1,000,000**

Reservoir Storage Reevaluation - Section 3406 (b) (19). The management objectives of this program are to reevaluate existing operational criteria in order to maintain minimum carryover storage at Sacramento and Trinity River reservoirs. The focus of this reevaluation is the protection and restoration of anadromous fish on the Sacramento and Trinity Rivers. In FY 1997 actions will involve the evaluation of operational criteria for temperature needs and water supplies as Project operations change due to other dependencies.	**$300,000**
Restoration of Riparian Habitat - Section 3406 (b) (13). Salmon populations have declined drastically within the Central Valley due in part to a loss of appropriate rearing habitat in the upper Sacramento, American and Stanislaus Rivers. A program to reestablish meander belts, and limit bank protection activities to avoid and reduce habitat loss will be developed. In FY 1997, a pilot project will be initiated to demonstrate the effects of positive meander belt management.	**$425,000**
Subtotal, Restoration Fund	**$21,226,000**
Total request	**$35,426,000**



Construction - 150

Central Valley Project
Sacramento River Division
California

Location This division is located in Colusa, Glenn, and Tehama Counties in northern California.

Description .As an integral part of the Central Valley Project, this division delivers water and power supplies developed in the Shasta and Trinity River divisions to users located in the Sacramento River Division service area. The division consists of the Red Bluff Diversion Dam, a concrete weir structure 52 feet high and 5,985 feet long; Red Bluff Diversion Dam fish bypass facilities; Corning Pumping Plant, with 6 units and a total capacity of 477 cubic feet per second; Tehama-Colusa Canal system (including reaches 1 through 8A, canalside pumping plants and distribution systems), approximately 114 miles long, with an initial capacity of 2,530 cubic feet per second, extending from Red Bluff Diversion Dam and terminating in Yolo County south of Dunnigan, California; Tehama-Colusa Fish Facilities; Corning Canal, 21 miles long (with a diversion capacity of 500 cubic feet per second) and terminating about 4 miles southwest of Corning, California; Corning Water District distribution system and Stony Canal. The division provides full irrigation service to 34,319 acres and supplemental irrigation service to 105,199 acres.

Authorization Public Law 81-839, Sacramento Valley Canals, September 26, 1950; Public Law 90-65, Amend Sacramento Valley Canals Act, August 19, 1967; Public Law 102-575, Reclamation Projects Authorization and Adjustment Act of 1992, October 30, 1992.

Land certification The projectwide land certification was completed on the original service area on May 3, 1956, and the extended service area on December 22, 1980.

Definite plan report To be completed as required.

Benefit cost ratio as of October 1, 1996 A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).

Completion data As of September 30, 1995, the Sacramento River Division was 78 percent complete. Substantial increases due to the reevaluation of the estimated contract value for Glenn-Colusa Irrigation District, Pilot Research Pump Evaluation and Fish Passage Program alternative at Red Bluff Diversion

Dam, and an added contract for Butte Creek resulted in the decrease in the percent complete as presented in FY 1996 Budget Justifications. Completed and operational major features include: Red Bluff Diversion Dam, Tehama-Colusa Canal system, including Reaches 1 through 8A, canalside pumping plants and distribution systems, Corning Canal and facilities, Corning Water District distribution system, the Tehama-Colusa fish facilities and Red Bluff Diversion Dam fish bypass facilities.

Summarized Financial Data

Total Federal obligations	$550,765,000	Allotments to 9/30/95	$353,873,561
		Allotments for FY 1996	7,425,000
Net property and other transfers			
Federal participation	-169,235	Allotments to date	$361,298,561
Non-Federal participation 1/	2,200,000	Allotments for FY 1997	7,200,000
Adjustment 2/	235		
Total to be allocated	$552,796,000	Balance to complete	$182,266,439

1/ Represents State of California cost-sharing of $1,320,000 for the Demonstration Pilot Research Facility evaluation, and $880,000 for the fish passage program Environmental Impact Statement (EIS).

2/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$76,545,000	$84,165,000
Irrigation	125,866,000	138,396,000
Deferred use 1/	54,450,000	54,450,000
Power	105,864,000	105,864,000
Fish and wildlife	131,047,000	160,955,000
Recreation	282,000	282,000
Flood control	7,888,000	8,673,000
Archaeological preservation	11,000	11,000
Total	$501,953,000	$552,796,000

1/ Incremental cost of providing extra capacity and elevation in Tehama-Colusa Canal (Reaches 5-8A) to enable future water service to the planned West Sacramento Canal Unit service area.

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net increase in the total cost to be allocated of $50,843,000 includes increases of $20,700,000 for a cooperative study with the Western Canal Authority to explore the potential for Butte Creek Diversion dam removals, $19,920,660 for Glenn-Colusa Irrigation District increased contract costs, $6,428,444 for contingency requirements, $1,721,008 for research and evaluation of the Demonstration Pumping Facility due to additional requirements, $1,446,068 for additional contract modifications for the Pilot Research Pumping Facility, $1,129,465 to continue work on the Central Valley Project Improvement Act supporting investigations, $1,088,000 for indexing to October 1996 projected prices, $1,025,058 to begin work activities on the Colusa Basin Drain project, $25,000 for continuation of the Captive Broodstock Program, $17,006 for additional costs in completion of the Sacramento River Basin Habitat Study, $135 for rounding, $113 for additional minor adjustments for the Tehama-Colusa fish screen enlargement headwork contract; offset by a decrease of $2,191,950 for contract reevaluation of the long-term solution of the fish passage program at Red Bluff Diversion Dam, $185,550 for contract cost reduction at East San Slough, $167,307 for decrease of contract value for the Stony Creek Orifice contract, $86,106 for decline in contract costs for deer fencing along the Tehama-Colusa Canal, and $27,044 for Red Bluff Information Center reduced contract costs.

Project Repayment

Repaid by	Amount
M&I water users	$84,165,000
Irrigators	138,396,000
Deferred use 1/	54,450,000
Power users 2/	105,864,000
State of California 3/	38,092,000
Nonreimbursable 4/	131,829,000
Total	$552,796,000

1/ Incremental cost of providing extra capacity and elevation in Tehama-Colusa Canal (Reaches 5-8A) to enable future water service to the planned West Sacramento Canal Unit service area, as authorized under Section 1 of the Act of August 19, 1967 (Public Law 90-65).

2/ Current estimate of the total power revenue assistance requirement for 20 irrigation water service contractors located in the Black Butte Dam and Reservoir (Stony Creek), Corning Canal, and Tehama-Colusa Canal service areas. This estimate is based on the results of the Payment Capacity Analysis for Tehama-Colusa Water Users Association completed in October 1994. This ability to pay study will be updated every five years in accordance with Section 105 of the Act of October 27, 1986 (Public Law 99-546).

3/ Represents State of California share of costs of fish and wildlife activities authorized under the Central Valley Project Improvement Act (Public Law 102-575), as follows: $14,458,000 for fish screens and fish recovery facilities associated with the Hamilton City Pumping Plant (Glenn-Colusa Irrigation District), and $23,634,000 for alternative fish passage facilities at Red Bluff Diversion Dam.

4/ Includes $122,863,000 for fish and wildlife, $282,000 for recreation, $8,673,000 for flood control, and $11,000 for preservation of historical and archaeological data under the Act of June 27, 1960 (Public Law 86-523).

Status of repayment contract To date, 16 contracts for water service have been executed and six are still under negotiation. Contracts for the construction of four distribution systems have been executed.

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance Tehama-Colusa Canal, June 7, 1972; Tehama-Colusa Canal Supplemental, May 15, 1975; Fish Passage EIS, Draft, January 1997; Final, June 1998.

Appropriation ceiling Not applicable.

Work proposed for FY 1997

CONSTRUCTION PROGRAM

Glenn-Colusa Irrigation District - FY97 efforts will include: conducting the public review of the draft joint State-Federal Environmental Impact Report/Environmental Impact Statement and completing it; completing geotechnical foundation explorations and testing; completing final designs, plans and specifications, acquiring lands, easements, and rights-of-way, accomplishing any utility relocations, and initiating environmental mitigation. FY 1997 work will be completed to support a FY 1998 request for proposals to construct the new screen.

$4,300,000

Other project cost - An evaluation program will continue for monitoring the effectiveness of the Demonstration Research Pumping Facility for fish passage for both upstream and downstream migrating anadromous fish. Studies for the environmental impact statement will complete. Installation of deer fencing along the Tehama-Colusa Canal will continue. Work will continue on resolution of groundwater problems for the Colusa Basin Drain. A cooperative study with the Western Canal Authority to explore the potential for Butte Creek Diversion Dam removals will begin.

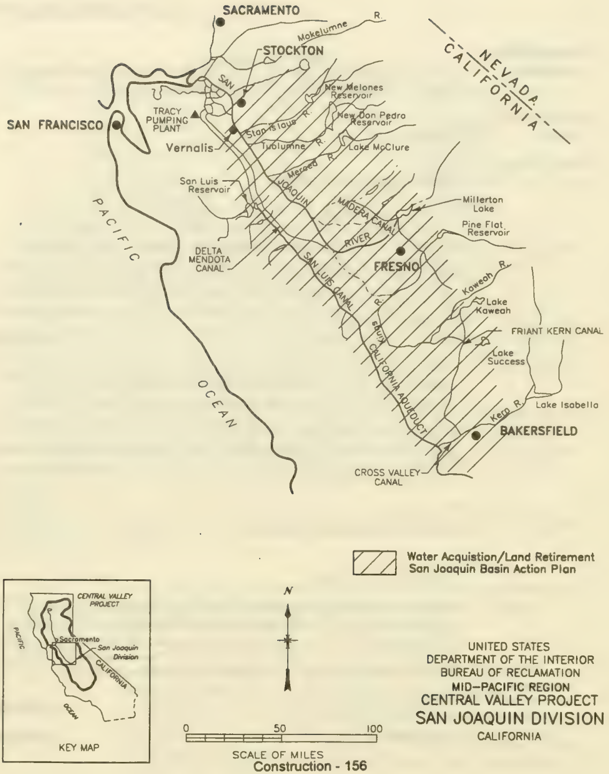
2,900,000

Subtotal, Construction Program	**$7,200,000**

RESTORATION FUND

Central Valley Project Improvement Act Supporting Investigations - Section 3406(e) (1-6). Work will complete on investigations in support of temperatures for anadromous fish survival, additional hatchery production, elimination of mitigation barriers to salmonids. Temperature control device at Delta Cross Channel and Georgiana Slough will be completed.

Subtotal Restoration Fund	**$1,000,000**
Total request	**$8,200,000**



Construction - 156

Central Valley Project
San Joaquin Division
California

Location	This division is located in the San Joaquin Valley of central California.
Description	An integral part of the Central Valley Project, the division was established in response to legislation enacted to protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley of California.
Authorization	Public Law 102-575, Reclamation Projects Authorization and Adjustment Act of 1992, October 30, 1992.
Land certification	Not applicable.
Definite plan report	Not applicable.
Benefit cost ratio as of October 1, 1996	Benefit-cost ratios are not required for activities authorized under the Central Valley Improvement Act, Title 34, Public Law 102-575.
Completion data	As of September 30, 1995, the San Joaquin Division was 1 percent complete. Substantial increase to the estimated contract value for land retirement and water acquisition resulted in the decease in the percent complete as presented in FY 1996 Budget Justifications.

Summarized Financial Data

Total Federal obligations	$220,561,000	Allotments to 9/30/95	$23,730,152
		Allotments for FY 1996	18,091,000
Net property and other transfers Federal participation	54,948	Allotments to date	$41,821,152
Adjustments 1/	52		
Non-Federal participation		Allotments for FY 1997	14,012,000
Total to be allocated	$220,616,000	Balance to complete	$164,727,848

1/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Fish and wildlife	$154,317,000	$220,616,000
Total	$154,317,000	$220,616,000

Cost allocation methodology Costs to be allocated are specific fish and wildlife costs.

The increase in total cost to be allocated of $66,299,000 includes $41,523,591 for water acquisition program, $14,375,041 for indexing to October 1996 projected prices, $10,345,086 for reevaluation of land retirement program, $55,230 for reevaluation of contingency requirements, and $52 for transfer of property.

Project Repayment

Repaid by	Amount
State and local entities 1/	$ 38,078,000
Nonreimbursable	182,538,000
Total	$220,616,000

1/ Includes $30,115,000 for water acquisition program, and $7,963,000 for San Joaquin Basin Action Plan.

Status of repayment contract Not applicable.

Irrigation investment per acre Not applicable.

Status of NEPA compliance Not applicable.

Appropriation ceiling Not applicable.

Work proposed for FY 1997

CONSTRUCTION PROGRAM

Water Acquisition - Section 3406(b)(3). The program to acquire additional water supplies to supplement the quantity of water dedicated to fish and wildlife purposes will continue. Water acquisition agreements for short-term water supplies for Level 4 increment of full habitat development for refuges will continue. In addition, environmental compliance of a long-term acquisition program will complete, followed by initiating acquisition of long-term water supplies. **$1,737,000**

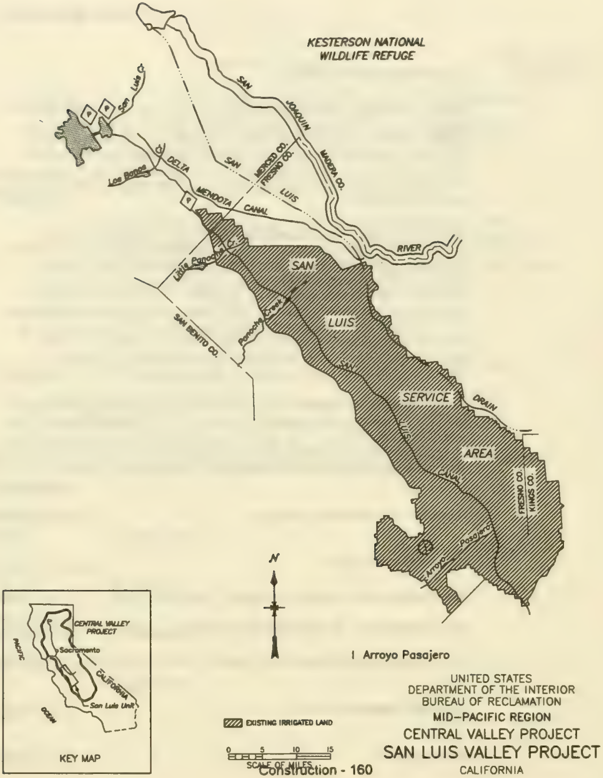
Land Retirement - Section 3408(h), 3406(b)(3). The land retirement program will continue to establish wildlife habitat, retire lands from irrigated production, and implement the drainage management plan of the San Joaquin Valley Drainage Program. Lands will be selected for purchase based upon the degree to which an acquisition would further the broad environmental objectives of the CVPIA. Land purchases, with associated water rights in some cases, will occur on a willing seller basis and will be targeted to optimize: (1) wildlife protection and restoriation; (2) water conservations: and / or (3) drainage problem reduction. Long-term guidelines and Rules and Regulations will be developed. **$2,000,000**

San Joaquin Basin Action Plan - Section 3406(d). Planning and design required for full implementation of the Plan will be continued. Right-of-way acquisition will continue. The environmental compliance documentation will complete and design and construction of the highest priority conveyance facilities for the Action Plan identified water supplies will be initiated. **$ 1,000,000**

Subtotal - Construction Program	**$ 4,737,000**

RESTORATION FUND

Water Acquisition - Section 3406(b)(3). Same as above.	**$ 6,275,000**
Land Retirement - Section 3408(h), 3406(b)(3), as above.	**$ 2,000,000**
San Joaquin Basin Action Plan - Section 3406(d), as above.	**$ 1,000,000**
Subtotal - Restoration Fund	**$ 9,275,000**
Total request	**$14,012,000**



Construction - 160

Central Valley Project
San Luis Unit
California

Location	This unit is located near Los Banos on the west side of the San Joaquin Valley and 30 miles southwest of Fresno, California.
Description	An integral part of the Central Valley Project, the unit delivers water and power supplies developed in the American River, Shasta and Trinity River divisions to users located in the unit service area. The unit provides supplemental irrigation water to 651,000 acres, 26,500 acre-feet annually for municipal and industrial use, and generates 227,200 kilowatts of hydroelectric power. The 651,000 acres includes 583,000 acres of irrigable acres currently within Westlands Water District in accordance with Solicitor's Opinion, June 17, 1986, which holds, in part, that the Act of June 3, 1960, authorizes the Secretary of the Interior to construct, operate, and maintain the San Luis Unit and accords the Secretary reasonable administrative discretion with regard to the size of the Federal San Luis Unit service area. The unit also provides recreation and flood control benefits.
Authorization	Public Law 86-488, June 3, 1960; and Public Law 95-46, June 15, 1977.
Land certification	May 11, 1962, below elevation 470; and February 14, 1979, above elevation 470.
Definite plan report	December 29, 1962.
Benefit cost ratio as of October 1, 1996	A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).
Completion data	As of September 30, 1995, the project is 73 percent complete. The remaining construction program will be initiated, after reauthorization of the distribution and drainage system to provide additional appropriation ceiling, authority for increasing the service area, and other required authorizations.

CVP, San Luis Unit . . . .

Summarized Financial Data

Total Federal obligations	$1,509,164,000	Allotments to 9/30/95 Allotments for FY 1996	$565,451,834 800,000
Net property and other transfers			
Federal participation	-3,991,766	Allotments to date	$566,251,834
Non-Federal participation			
Cash 1/	232,772,114	Allotments for FY 1997	2,900,000
Non-cash 2/	36,581,719		
Adjustment 3/	-67		
Total to be allocated	$1,774,526,000	Balance to complete	$940,012,166

1/ Includes $224,662,627 from the State of California towards the State share of the cost of the San Luis Joint State-Federal water supply facilities. Costs of the Joint State-Federal facilities are funded 55 percent State and 45 percent Federal, under the provisions of Federal-State Contract No. 14-06-200-9755, December 31, 1961. Also includes $8,109,487 for construction charges payable by Westlands Water District under Contact No. 14-06-200-2020A, dated April 1, 1965, for that portion of the Westlands Distribution System used to deliver project water supplies to the LeMoore Naval Air Station. As provided for by Section 2 of the Act of August 10, 1972 (Public Law 92-378), agricultural and grazing lease revenues from lands of the LeMoore Naval Air Station are being used to provide repayment to the United States of construction charges attributable to such lands which would have been applicable if such lands were not owned by the Federal Government.

2/ Includes $34,358,259 for the State of California, Department of Water Resources, towards the State share of the cost of the Joint State-Federal water supply facilities; $581,719 for the State of California, Department of Water Resources, for the San Luis Dam Slide repairs; and $1,641,741 for the State of California, Department of Parks and Recreation, for recreation facilities at the B.F. Sisk San Luis Reservoir, Los Banos Creek Detention Dam, San Luis Canal, and O'Neill Forebay recreation sites.

3/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$197,521,000	$189,965,000
Irrigation	1,206,281,000	1,160,138,000
Fish and wildlife	129,290,000	124,345,000
Recreation	7,120,000	7,169,000
Flood control	75,595,000	72,703,000
State share of San Luis Unit	212,261,000	212,261,000
Archaeological preservation	7,000	7,000
Highway improvement	1,383,000	1,383,000
Safety of dams	6,555,000	6,555,000
Total	$1,836,013,000	$1,774,526,000

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this unit will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net decrease in the total cost to be allocated of $61,487,000 includes $82,560,407 for San Luis Drainage Facilities (Including $81,560,000 from elimination of the Demonstration Drainage Treatment Facility as a result of reduced cost effectiveness for the proposed project and $1,000,407 for re-evaluation of contingency requirements); partially offset by increases of $14,369,000 for indexing to October 1996 projected prices, $5,496,352 for San Luis Drain (includes $3,966,252 for re-evaluation of contingency requirements, $1,848,941 for Long-term Drainage Plan Program, and $72,000 for Relocations; partially offset by decreases of $386,000 for Land and Land Rights, and $4,841 for Clean-up of Kesterson Reservoir), $1,191,168 for re-evaluation of contingency requirements for San Luis Canal Reach Number 5, $16,000 for Relift Pumping Plants for Westlands Water District Distribution System for PG&E Line Extensions, $352 for re-evaluation of contingency requirements for Westlands Water District Distribution Systems, $347 for re-evaluation of contingency requirements for the Drainage Collector System, $110 for re-evaluation of contingency requirements for B.F. Sisk Dam and Reservoir, and $78 for rounding.

Project Repayment

Repaid by	Amount
M&I water users	$189,965,000
Irrigators	1,160,138,000
State and local entities 1/	219,809,000
Nonreimbursable 2/	204,614,000
Total	$1,774,526,000

1/ Includes $3,943,000 for the State of California, Department of Parks and Recreation, share of the costs of recreation facilities at B.F. Sisk San Luis Reservoir, Los Banos Reservoir, San Luis Canal, and O'Neill Forebay; $212,261,000 for the State of California, Department of Water Resources, share of the Joint State-Federal water facilities, under Section 10(b) of Federal-State Contract No. 14-06-200-9755, December 31, 1961, and Sections 9(d) and 30 of Contract No. 14-06-200-9755 Supplement No. 1; and, $3,605,000 for State of California share of the Safety of Dams program activities at B.F. Sisk San Luis Dam, Los Banos Creek Detention Dam and O'Neill Forebay Dam, under Federal-State Contract No. 14-06-200-9755, December 31, 1961.

2/ Includes $124,345,000 for fish and wildlife; $3,226,000 for recreation; $72,703,000 for flood control; $7,000 for preservation of historical and archaeological data under Public Law 86-523; $1,383,000 for incremental costs of improving existing roads to higher standards required for project construction (Public Law 87-874); and, $2,950,000 for Federal share of the Safety of Dams program activities at B.F. Sisk San Luis Dam, Los Banos Creek Detention Dam and O'Neill Forebay Dam under the Reclamation Safety of Dams Act of 1978, November 2, 1978 (Public Law 95-578), as amended in 1984 by Public Law 98-404.

Status of repayment contract

Contracts were executed with Westlands Water District on June 5, 1963, and April 1, 1965, both subject to amendment for service to a larger area.

The existing 1965 repayment contract with the Westlands Water District covers expenditures up to $157,048,000. The District's Board of Directors has also adopted a resolution pledging to repay costs of work authorized under Public Law 95-46 covering an additional $30,140,000. Negotiations for repayment of all costs under Public Law 95-46 were completed in December 1986, as part of the stipulation for the compromised settlement, commonly known as the "Barcellos Judgment".

On December 30, 1986, the United States District Court in and for the Eastern District of California entered a judgment in the Westlands Water District's lawsuit and another lawsuit which had been partially consolidated with the District's lawsuit, thereby resolving Reclamation's repayment contract.

Irrigation investment per acre

Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization.

Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance

A projectwide environmental statement was filed with the Council on Environmental Quality October 4, 1972. A draft supplement to the final was filed with the Council on Environmental Quality July 30, 1979. A draft environmental statement for cleanup and closure of the San Luis Drain and Kesterson Reservoir was filed with the Environmental Protection Agency April 30, 1986; final filed October 20, 1986. A draft environmental statement on a plan developed as a result of the Barcellos Judgment, was filed with the Environmental Protection Agency December 20, 1991. This plan was not accepted as complying with the Barcellos Judgement, and it is still undetermined if and when the final environmental statement will be filed.

Other information

Because of the need for additional appropriation cost ceiling, Public Law 95-46 authorized $31,050,000 to be appropriated in FY 1978 for continuation of construction of the Westlands Water District and San Luis Water District Distribution System and the San Luis Drain. On July 19, 1982, the Comptroller General issued decision B-198221 which stated that Public Law 95-46 funds were appropriated for obligation only in FY 1978. Section 140 of Public Law 97-377, approved December 21, 1982, provides that Public Law 95-46 funds are henceforth available until expended. On June 17, 1986, the Solicitor issued Solicitor's Opinion M-36901 (Supplemental No. 1) which determined that the San Luis Drain can be constructed under the indexed cost ceiling in the San Luis Unit authorization act of June 3, 1960, Public Law 86-488, and further held that more than 500,000 acres could be served from the unit.

On December 30, 1986, the United States District Court, in and for the Eastern District of California entered a judgment in a lawsuit which resolves Reclamation's contract disputes with the Westlands Water District concerning the amount of Central Valley Project water to which the District is entitled through December 31, 2008, and the rates it must pay for that water. In addition, on November 26, 1975, a lawsuit was filed by the Contra Costa Water District requesting that the United States be enjoined from executing a proposed amendatory water service contract with Westlands Water District until the provisions of Public Law 91-190 (National Environmental Policy Act) had been complied with. A stipulation entered into by the United States in the lawsuit required the completion of a supplemental Environmental Impact Statement on the amendatory water service contract by December 31, 1986, but the parties to that lawsuit are still negotiating a further amendment of that stipulation.

CVP, San Luis Unit . . . .

The discovery of high concentrations of selenium and other trace elements in the San Luis Drain and Kesterson Reservoir necessitated studies be conducted to develop and evaluate economically viable and environmentally sound alternatives for the containment and/or treatment and disposal of subsurface drainage water, for both an interim and permanent solution. On February 5, 1985, the State Water Resources Control Board directed Reclamation to submit a plan detailing actions to clean up Kesterson Reservoir and to protect the wildlife of the area and waters of the State. On July 6, 1988, a contract was awarded to Dutra Construction to fill the ephemeral pool areas. This contract was substantially completed on November 16, 1988. A monitoring/evaluation program continues at Kesterson Reservoir under the Operation and Maintenance program.

The Arroyo Pasajero, located in Fresno County, is a dry wash which drains the four streams of the Coalinga stream group. Flood waters from the stream group travel to the San Luis Canal where they are ponded. Large concentrations of asbestos have been discovered within the flood waters and sediments of the ponding area originating from naturally erosive deposits in the upper watershed and from abandoned asbestos mines which are currently listed on the Environmental Protection Agency Superfund List. When the ponding area dries out after a flood, the presence of asbestos presents a hazard of becoming airborne during farming operations and from natural wind patterns. A feasibility study is currently being conducted jointly with the California Department of Water Resources, with 55 percent State and 45 percent Federal funding. The draft feasibility report was completed in March 1990. The final feasibility report is scheduled to be finalized in October 1996.

In 1986, a U.S. District Court judgment settled a lawsuit between Westlands Water District (Westlands), Reclamation, and various classes of landowners and water users in Westlands. Among other things, the judgment deals with the supply of water to Westlands, the distribution of that water to lands within Westlands, and the provision of drainage service to Westlands. The judgment is commonly called the Barcellos Judgment. As stipulated in the judgment, the Federal parties submitted to Westlands Water District a draft plan for drainage service before December 31, 1991. On May 29, 1992, U.S. District Court Judge Wanger determined that the drainage plan did not meet the specifications stated in the Barcellos Judgement and ordered that all monies deposited into the Drainage Trust Fund be released and refunded by the Trustee to the Westlands Water District and other landowners.

In early 1992, landowners in Westlands Water District and Westlands Water District itself again filed a lawsuit against the United States for failure to provide drainage. This action has come to be referred to as the "Sumner-Peck" litigation. The case was partially consolidated with another lawsuit brought by two downslope exchange contractors, Firebaugh Canal Company and Central California Irrigation District, which claims damages from failure to provide drainage upslope in the San Luis Unit. In May 1993, U.S. District Court Judge Wanger granted a motion for partial summary judgement stating that the Secretary of the Interior has an obligation to provide drainage as specified in the San Luis Act. In December 1994, following a first phase trial, Judge Wanger entered findings of fact and conclusions of law stating the Secretary of the Interior's obligation has not been excused, either factually or legally, and failure to complete the San Luis Drain constitutes agency action unlawfully withheld. In March of 1995, Judge Wanger issued his order directing the United States to, without delay, take all reasonable and necessary actions to apply for a discharge permit in order to complete the San Luis Drain as specified in the 1960 San Luis Act. The United States filed an appeal of Judge Wanger's order. In connection with the appeal process, we are currently engaged in court mediated settlement discussions.

Appropriation ceiling

Appropriations authorized for the Federal and joint-use facilities are $603,916,000 (October 1996). The comparable Federal obligation is $1,175,979,081, which exceeds the ceiling by more than the amount of contingencies included in the obligation. Appropriate congressional committees will be advised of the ceiling status for this portion of the project. Legislation to provide additional appropriation ceiling will be needed to complete the project as authorized. Current commitments will be held within the existing ceiling.

Appropriations authorized for the San Luis Unit Distribution and Drainage System are $252,970,311. The comparable Federal obligation is $346,825,870 (including $13,640,951 Loan Program funds provided to the San Luis Water District), which exceeds the ceiling by more than the amount of contingencies included in the obligation. Appropriate congressional committees have been advised of the ceiling status for this portion of the project. Legislation to provide additional appropriation ceiling is needed to complete the project as authorized. Current commitments will be held within the existing ceiling.

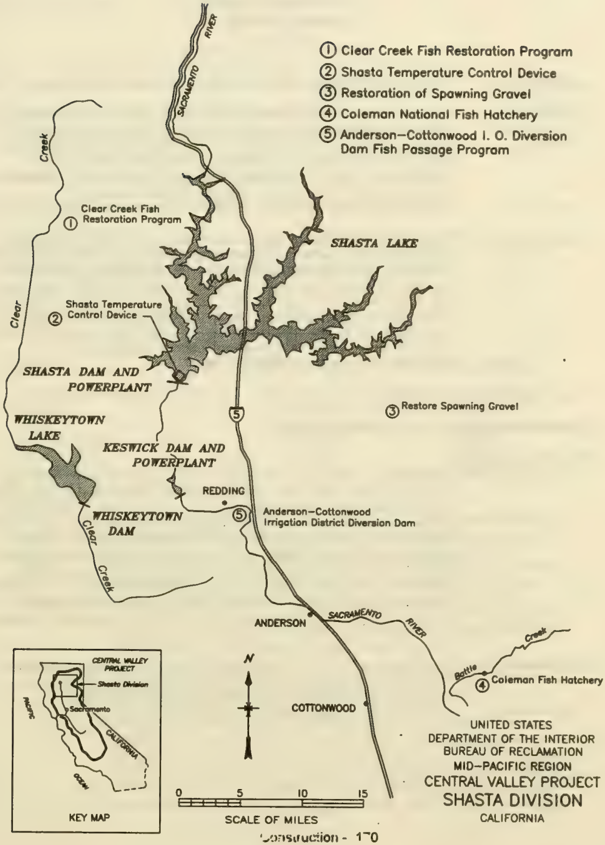
Work proposed for FY 1997

CONSTRUCTION PROGRAM - Continue to sustain Reclamation's involvement and commitments with respect to drainage problems in the San Luis Unit.

Joint-Use Facilities - Coordination activities with the State of California for Arroyo Pasajero will continue.	**$ 775,000**
San Luis Drain - Continue the Real-time Drainage Management Program and the Long-term Drainage Plan.	**800,000**

CVP, San Luis Unit . . . .

San Luis Drainage Management Program - Funding provides for Reclamation's participation in drainage volume and constituent load reduction projects, discharge control facilities, and coordinated data collection activities.	**1,600,000**
Non-Federal participation	**- 275,000**
Total request	**$ 2,900,000**


① Clear Creek Fish Restoration Program
② Shasta Temperature Control Device
③ Restoration of Spawning Gravel
④ Coleman National Fish Hatchery
⑤ Anderson—Cottonwood I. O. Diversion Dam Fish Passage Program
SACRAMENTO RIVER
Clear Creek
① Clear Creek Fish Restoration Program
SHASTA LAKE
② Shasta Temperature Control Device
SHASTA DAM AND POWERPLANT
5
③ Restore Spawning Gravel
WHISKEYTOWN LAKE
KESWICK DAM AND POWERPLANT
REDDING
⑤ Anderson—Cottonwood Irrigation District Diversion Dam
WHISKEYTOWN DAM
Clear Creek
ANDERSON
SACRAMENTO RIVER
Battle Creek
④ Coleman Fish Hatchery
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CENTRAL VALLEY PROJECT
Shasta Division
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PACIFIC OCEAN
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KEY MAP
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SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MID-PACIFIC REGION
CENTRAL VALLEY PROJECT
SHASTA DIVISION
CALIFORNIA

Construction - 170

Central Valley Project
Shasta Division
California

Location	This division is located in Shasta County in northeastern California.
Description	As an integral part of the Central Valley Project, this division develops water and power supplies for delivery to users located in the Shasta division service area and elsewhere in the Central Valley Project service area. The Shasta division provides supplemental irrigation service to 499,694 acres and 10,710 acre-feet annually for municipal and industrial use in the division service area, generates 614,000 kilowatts of hydropower, and provides fish and wildlife and flood control benefits.
Authorization	Emergency Relief Appropriation Act of 1935, April 8, 1935. The Central Valley Project was authorized by a finding of feasibility by the Secretary of the Interior, and approved by the President on December 2, 1935; Public Law 392, Rivers and Harbors Acts of 1937, August 26, 1937; Public Law 868, Rivers and Harbors Act of 1940, October 17, 1940; Public Law 99-546, Coordinated Operations Agreement, Suisun Marsh Preservation Agreement and Small Reclamation Projects Act of 1986, October 27, 1986; and Public Law 102-575, Reclamation Projects Authorization and Adjustment Act of 1992, October 30, 1992.
Land certification	Not applicable.
Definite plan report	To be completed as required.
Benefit cost ratio as of October 1, 1996	A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).
Completion data	As of September 30, 1995, the Shasta Division was 75 percent complete. Completed and operational major features include: Shasta Dam and Reservoir, Keswick Dam and Reservoir, and Shasta and Keswick Powerplants and Switchyards.

CVP, Shasta Division . . . .

Summarized Financial Data

Total Federal obligations	$343,310,000	Allotments to 9/30/95	$216,781,712
		Allotments for FY 1996	32,613,000
Net property and other transfers			
Federal participation	165	Allotments to date	$249,394,712
Non-Federal participation 1/	- 0 -	Allotments for FY 1997	7,095,000
Adjustment 2/	-165		
Total to be allocated	$343,310,000	Balance to complete	$ 86,820,288

1/ A task order as called for in the cost-sharing agreement with the State of California has not been signed, and federal funding has been provided for completion of the Shasta Temperature Control Device, causing the total Federal obligation to increase.

2/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$27,788,000	$28,701,000
Irrigation	102,566,000	105,937,000
Power	34,588,000	35,725,000
Fish and wildlife	156,460,000	166,308,000
Flood control	6,428,000	6,639,000
Total	$327,830,000	$343,310,000

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net increase in the total cost to be allocated of $15,480,000 includes $6,881,803 for Coleman National Fish Hatchery increase due to reevaluation of estimated contract costs, $5,700,000 as a result of a more in depth review of what the requirements are to complete the restoration program on Clear Creek Restoration, $5,133,652 for reevaluation of contract costs for Anderson-Cottonwood at Keswick Facilities, $1,799,000 due to further refinement of the program requirements to restore spawning gravel, and $827,000 for indexing to October 1996 projected prices; offset by a decrease of $4,803,082 in minor contracts, $58,208 for an increase in the contract cost for the guard station/security system at Shasta Facility and $165 for minor adjustment.

Project Repayment

Repaid by	Amount
M&I water users	$28,701,000
Irrigators	105,937,000
Power users	35,725,000
State of California 1/	36,919,000
Nonreimbursable 2/	136,028,000
Total	$343,310,000

1/ Represents State of California share of costs of fish and wildlife activities authorized under the Central Valley Project Improvement Act (Public Law 102-575), as follows: $19,392,000 for Shasta Temperature Control Device, $9,296,000 for Keswick Facilities (Anderson-Cottonwood Irrigation District), and $8,231,000 for restoration of spawning gravel on the upper Sacramento, American, and Stanislaus Rivers.

2/ Includes $129,389,000 for fish and wildlife, and $6,639,000 for flood control.

Status of repayment contract To date, four contracts for water service have been executed.

Irrigation investment per acre Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance Will be completed as required.

Appropriation ceiling Not applicable.

Work proposed for FY 1997

CONSTRUCTION PROGRAM

Clear Creek Fish Restoration Program - Section 3406(b)(12). Activities will include habitat restoration of the watershed, instream flow studies, monitoring instrean water quality and coordination with the State of California resource agencies and other agency efforts. $ 500,000

Subtotal, Regular Construction $ 500,000

RESTORATION FUND

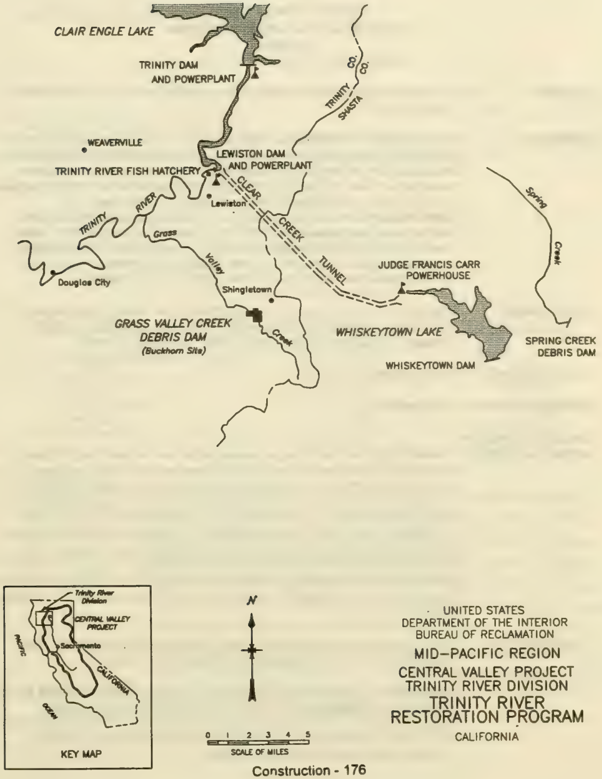
Shasta Temperature Control Device - Section 3406(b)(6). Construction activities of the Shasta Temperature Control Device will continue. $3,470,000

Coleman National Fish Hatchery - Section 3406(b)(11). Coleman National Fish Hatchery supplements natural production of anadromous fish in the Upper Sacramento River basin. The Fish and Wildlife Service is currently developing a plan to rehabilitate and expand the facility so that survival, smolt quality, and release size are significantly improved. An additional objective is to provide full treatment of waters entering the hatchery system thus removing or significantly lowering potential for transmission of disease organisms to hatchery fish. The Hatchery is in need of significant rehabilitation and replacement of facilities. Although a number of improvements have been made, others are required for the Hatchery to minimally satisfy mitigation objectives as follows: rehabilitate water supply and treatment facilities; rehabilitate existing ponds; construct new ponds; construct new adult holding facilities for winter-run salmon; finish rehabilitation of roads and parking areas, etc. The selected plan alternative will be implemented to safeguard the hatchery water supply. $2,000,000

Clear Creek Fish Restoration Program - Section 3406(b)(12). Activities will include habitat restoration of the watershed, instream flow studies, monitoring instream water quality and coordination with the State of California resource agencies and other agency efforts,. $ 500,000

Restore Spawning Gravel - Section 3406(b)(13). Salmon populations have declined drastically within the Central Valley due in part to a loss of access to historic and/or appropriate spawning gravels. Spawning gravel must be restored on upper Sacramento, American, and Stanislaus Rivers. A gravel restoration project on the Sacramento River below Keswick Dam will continue on an opportunistic basis while a long-term program gravel restoration is developed. $ 525,000

Anderson-Cottonwood Irrigation District Diversion Dam Fish Passage Program - Section 3406(b)(17). The Secretary is directed to develop and implement a program to resolve fishery passage problems at the subject Dam as well as upstream stranding problems related to Dam operations. The Department of the Interior continue to will conduct a thorough evaluation of all existing information, collect additional information if needed, and develop a long-term solution to the fishery passage and upstream stranding problems.	$ 100,000
Subtotal, Restoration Fund	$6,595,000
Total request	$ 7,095,000



Construction - 176

Central Valley Project
Trinity River Restoration Program
California

Location This division is located in Trinity and Humboldt Counties in Northwestern California.

Description An integral part of the Central Valley Project, this division develops water and power supplies for delivery to users located in the division service area and elsewhere in the Central Valley Project service area. The facilities constructed under the original Trinity River Act provide full irrigation service to 6,676 acres, supplemental water service to 7,121 acres, and 4,810 acre-feet annually for municipal and industrial use in the division service area, and generation of 397,350 kilowatts of hydroelectric power. The purpose of the restoration program is to restore the fish and wildlife populations in the Trinity River to the levels approximating those which existed before the construction of the original division facilities.

Authorization Public Law 84-386, August 12, 1955; Public Law 96-335, September 4, 1980; Public Law 98-541, October 24, 1984; and, Public Law 102-377, October 2, 1992; and Public Law 104-46, November 13,1995.

Land certification None required.

Definite plan report None required.

Benefit cost ratio as of October 1, 1996 A benefit-cost ratio is no longer available for the Central Valley Project or any of its divisions and units. Benefit estimates submitted in support of the authorization of the original project features are out of date. Continued indexing of these estimates is inappropriate, and can be misleading. Benefit data for the in-service facilities are not available due to the high cost of collecting data. Recent additions to the list of authorized program activities have been justified on the basis of environmental goals rather than economic benefits. For that reason, benefit-cost ratios do not exist for fish and wildlife restoration and improvement activities authorized since the enactment of the Trinity River Restoration Act (Public Law 98-541, October 24, 1984).

Completion data Grass Valley Creek (Buckhorn) Debris Dam was completed in FY 1990. Trinity River Hatchery Modification completed in FY 1991.

Although fish habitat has been improved, given the historic damage to the watershed, significantly more work must be completed to achieve restoration goals. Bot the Department of the Interior and the Trinity Task Force have recommended additional authority and funding in order to complete necessary restoration activities.

CVP,Trinity River Restoration Program . . . .

Summarized Financial Data

Total Federal obligations	$326,407,000	Allotments to 9/30/95	$305,960,723
		Allotments for FY 1996	3,767,000
Net property and other transfers			
Federal participation	1,263,809	Allotments to date	$309,727,723
Non-Federal participation	- 0 -	Allotments for FY 1997	5,000,000
Adjustment 1/	191		
Total to be allocated	$327,671,000	Balance to complete	$ 11,679,277

1/ Rounding.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$39,402,000	$39,402,000
Irrigation	145,435,000	145,435,000
Power	49,045,000	49,045,000
Fish and wildlife	87,455,000	84,064,000
Recreation	611,000	611,000
Flood control	9,114,000	9,114,000
Total	$331,062,000	$327,671,000

Cost allocation methodology

The operational and financial integration provision of the Central Valley Project authorization requires that the cost allocation, ratesetting and repayment studies be performed for the total project rather than for individual divisions and units. In response to congressional requests for information on individual divisions and units, pro rata shares of the cost allocation for the total authorized project are shown for the individual divisions and units. Thus, the pro rata share of the project cost allocation shown for this division will change each time there is a change in the total estimated cost of the authorized Central Valley Project.

The net decrease in the total cost to be allocated of $3,391,000 includes $3,951,738 within the Trinity River Fish and Wildlife Management Program, $45,000 for Trinity Hatchery Modification, and $113 for rounding; Offset by an increase of $605,851 for the Buckhorn Debris Dam.

Project Repayment

Repaid by	Amount
M&I water users	$39,402,000
Irrigators	145,435,000
Power users	49,045,000
State and local entities 1/	5,412,000
Nonreimbursable 2/	88,377,000
Total	$327,671,000

1/ The State of California and the counties of Humboldt and Trinity in California will pay to the Treasury of the United States an amount equal to 15 percent of the total amount of money that is expended for carrying out Grass Valley Creek activities, under Section 4(b) of the Act of October 24, 1984 (Public Law 98-541).

2/ Includes $78,652,000 for fish and wildlife, $611,000 for recreation, and $9,114,000 for flood control.

Status of repayment contract

The State of California and Trinity and Humboldt Counties have agreed to repay 15 percent of amounts appropriated for Grass Valley Creek activities. The State of California provided repayment assurance on September 1, 1985.

Fifty percent of appropriated amounts are being repaid by water and power users of the Central Valley Project water via existing or future water service contracts.

Repayment obligations shown above for irrigators, power users, and municipal and industrial water users include provisions for repayment of the restoration program, as directed by the Act of October 24, 1984 (Public Law 98-541).

Irrigation investment per acre

Irrigation investment is to be repaid from water and power revenues collected at the project level in compliance with the operationally and financially integrated project provision included in the project authorization. Each division and unit is part of the total project; some of the divisions develop water supplies and the other divisions and units deliver those water supplies. Irrigation investment data for the total authorized Central Valley Project are shown on the documents for the CVP, Miscellaneous Project Programs.

Status of NEPA compliance

Buckhorn Debris Dam Final Environmental Statement was filed with the Environmental Protection Agency August 18, 1986. A Categorical Exclusion checklist for the Trinity Fish Hatchery was completed on October 6, 1983.

Other information

Public Law 84-386 authorized the construction of Trinity River Division. Public Law 96-335 authorized construction of sediment control facilities on Grass Valley Creek, a tributary to the Trinity River, which includes Buckhorn debris dam and a sand dredging system. Public Law 98-541 authorized the Trinity River Fish and Wildlife Management Program. This program is to provide for the restoration of the fish and wildlife in the Trinity River Basin. Public Law 98-541 also set forth cost-sharing stipulations for the management program and included Grass Valley Creek activities in the cost-sharing thereby amending Public Law 96-335 which provided that all costs for construction of the debris dam would be nonreimbursable. Public

CVP,Trinity River Restoration Program . . . .

Law 102-377 increased the Trinity River Restoration Program ceiling by $15,000,000.

Appropriation ceiling

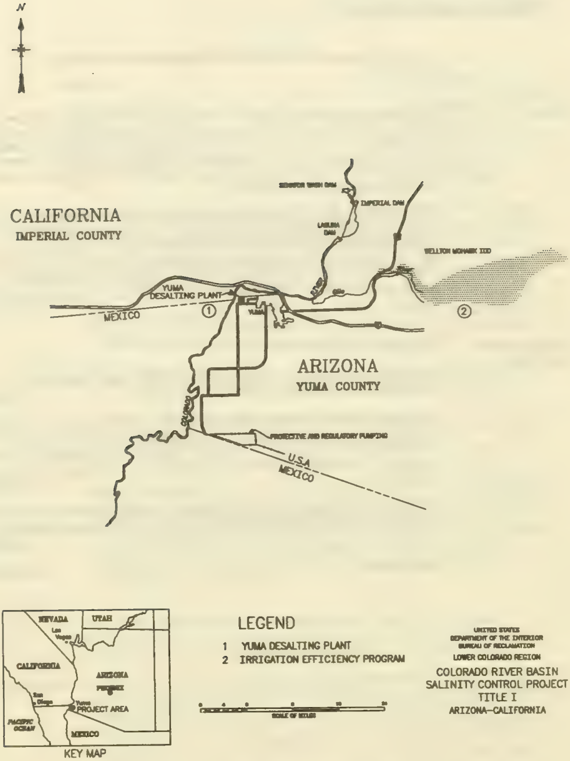
Appropriations authorized (Public Law 84-386, Public Law 96-335, Public Law 98-541, and Public Law 102-377) are $347,268,667(October 1996). Currently, Trinity River Division, Grass Valley Creek, and Trinity River Basin Fish and Wildlife Management program are under separate appropriation ceilings. Expenditures for work related to the Trinity River Division and Grass Valley Creek will not exceed their authorized appropriation ceilings.

The separate authorized appropriation ceiling for the Trinity River Basin Fish and Wildlife Program is $68,958,000 (October 1996). This authorization for appropriations was scheduled to expire on October 1, 1995. In the Fiscal Year 1996 Energy and Water Development Appropriations Act, Congress authorized the extension of the existing law for one year and appropriated to Reclamation an additional $5,000,000. Pending legislation would reauthorize the program through October 1, 1998.

Work Proposed for FY 1997

CONSTRUCTION PROGRAM

Grass Valley Creek Area - Stabilize 1,500 acres in the Grass Valley Creek watershed that is susceptible to sheet and rill erosion.	**$ 700,000**
Trinity River Fish and Wildlife Management Plan - Continue work on the Trinity River main stem construction of feather edges, side channels, spawning gravel placement, and pool dredging. Rehabilitation of South Fork Trinity River watershed will continue. Continue the analysis and rehabilitation of tributaries to the lower Klamath River.	**4,250,000**
Service Facilities, Depreciation, and Salvage - Provides for maintenance of field office partially offset by depreciation charged to permanent features of the project.	**50,000**
Total request	**$ 5,000,000**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MEXICO
YUMA
GILA
COLORADO
ARIZONA
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PROTECTIVE AND REGULATORY PUMPING
U.S.A.
MEXICO
NEVADA
UTAH
Las Vegas
CALIFORNIA
ARIZONA
PHOENIX
San Diego
Yuma
PROJECT AREA
PACIFIC OCEAN
MEXICO
KEY MAP
LEGEND
1 YUMA DESALTING PLANT
2 IRRIGATION EFFICIENCY PROGRAM
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION
COLORADO RIVER BASIN
SALINITY CONTROL PROJECT
TITLE I
ARIZONA–CALIFORNIA

Colorado River Basin Salinity Control Project
Title I Division
Arizona, California

Location	This project is located on the Colorado River in southwestern Arizona in Yuma County and in southeastern California in Imperial County.
Description	This project allows us to meet the Mexican water treaty requirements through enhancement and protection of the quality of water available in the Colorado River for the United States and the Republic of Mexico and to comply with the requirements of Minute No. 242 approved August 30, 1973, under the 1944 Treaty with Mexico. Fish and wildlife mitigation measures are also included as part of the project.
Authorization	Public Law 93-320, June 24, 1974; Public Law 96-336, September 4, 1980.
Land certification	None required.
Definite plan report	Desalting Complex Unit Status Report submitted November 1977; Coachella Canal Unit Definite Plan Report approved May 30, 1979; Protective and Regulatory Pumping Unit Definite Plan Report approved May 5, 1980. The Commissioner approved a special report on Reject Stream Replacement Studies, June 24, 1980.
Benefit cost ratios as of October 1, 1996	Assessment of full beneficial impact of improving water quality as a result of this authorized project has not been made. Agreements with the Mexican Government concerning salinity control in the Colorado River and Public Law 93-320 authorizing Title I and Title II activities are based upon social and political justifications.
Completion data	As of September 30, 1995, this project was 92 percent complete. Desalting Complex Unit-desalting plant completed in FY 1991; test operation of the main facility was completed and production of desalted water began in FY 1992. In FY 1993, the Yuma Desalting Plant was placed in ready reserve status and will continue to operate at this level for the foreseeable future. Coachella Canal Unit-canal replacement completed in FY 1984 and Protective and Regulatory Pumping Unit-14 wells and associated features completed in FY 1979, 7 wells and associated features completed in FY 1984, and the remaining 14 wells and associated features will be completed as required. Construction of the remaining features associated with the Yuma Desalting Complex Unit will be completed as necessary. A new completion date will be determined when the plant is placed in operational status. The plant is currently in "ready reserve" (nonoperational status).

Title I Division . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$459,038,000	Allotments to 9/30/95	$400,016,122
Other Federal	- 0 -	Allotments for FY 1996	2,300,000
Net property and other transfers			
Federal participation	-715,000	Allotments to date	$402,316,122
Non-Federal participation	- 0 -	Allotments for FY 1997	2,300,000
Total to be allocated	$458,323,000	Balance to complete	$ 54,421,878

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation	$ 45,938,000	$ 45,938,000
Mexican Treaty	412,018,000	412,221,000
Other 1/	164,000	164,000
Total	$458,120,000	$458,323,000

1 / Nonreimbursable preauthorization investigation costs (Public Law 92-149).

Cost allocation methodology

The methodology of cost allocation has not been modified.

The Mexican Treaty allocation increased $203,000 primarily due to indexing of the Painted Rock Reservoir land acquisition program, protective and regulatory pumping unit estimates, and revised cost estimates for permanent operating equipment.

Project Repayment

Repaid by	Amount
Irrigators 1/	$ 22,978,000
Non-reimbursable 2/	435,345,000
Total	$458,323,000

1/ A repayment contract with Coachella Valley Water District (CVWD) for $45,938,000 was executed March 14, 1978 and validated June 30, 1978. The contract provides that for each year the United States receives the benefits of the water saved by the lining program because mainstream Colorado River water is delivered to California in the quantities requested under Section 5 of the Boulder Canyon Project Act, construction costs of $1,148,000 ($45.938 million divided by a 40-year life of the canal) will be considered nonreimbursable. The United States expects to receive these benefits for the foreseeable future. The $22,978,000 represents CVWD's repayment obligation assuming the initial repayment installment by CVWD does not begin before October 1, 2002.

2/ Includes $412,221,000 Mexican Treaty Measures, $164,000 for nonreimbursable preauthorization investigation costs, and $22,960,000 for nonreimbursable irrigation costs.

Status of repayment contract Repayment contract with the Coachella Valley Water District for lining of the Coachella Canal was executed March 14, 1978, and validated June 30, 1978. The cost of the Desalting Complex is nonreimbursable except for costs associated with other beneficiaries. Costs for the Coachella Canal replacement will be shared by the United States and the Coachella Valley Water District. Costs associated with the Protective and Regulatory Pumping Unit, including delivery of water to Mexico, will be nonreimbursable, except for water used in the United States.

Title I Division . . . .

Irrigation investment per acre

Summary of Irrigation Investment

Total irrigation investment/acre	$585
Repayment of irrigation investment per acre by	
Irrigators 3/	$293
Nonreimbursable	$292
Payment capacity per acre and/or acre-foot	
Annual charges (per acre)	N/A
Construction	
Operation and Maintenance	

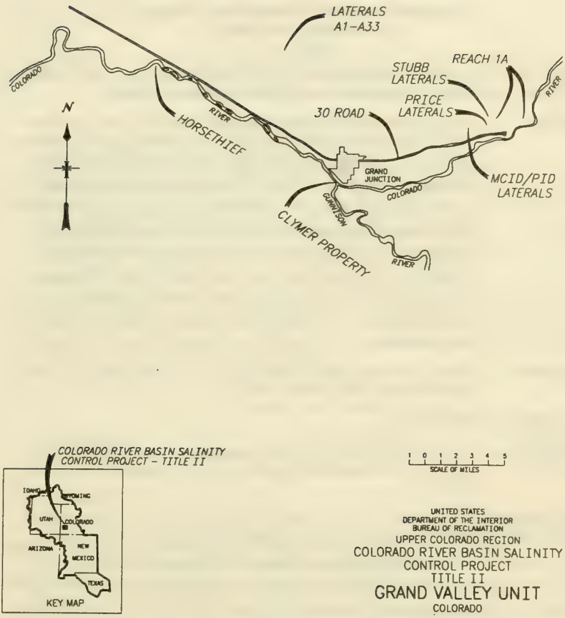
3/ Based on 78,530 acres of agricultural land in the Coachella Valley taken from 1991 crop census.

Status of NEPA compliance A project wide final environmental impact statement was filed with the Council on Environmental Quality on June 18, 1975.

Appropriation ceiling Appropriations authorized are $476,060,000 (October 1996). The comparable Federal obligation is $459,038,000. This authorization is adequate to cover this project as currently proposed.

Work proposed for FY 1997 **Desalting Complex Unit** - Funds are requested to rehabilitate the 07 instrumentation area of the Yuma Desalting Plant, to correct design deficiencies, for continued storage and preservation of desalting membranes, and to fund programs in salinity research to reduce operation costs. **$2,300,000**

Total request **$2,300,000**


LATERALS
A1–A33
REACH 1A
STUBB
LATERALS
PRICE
LATERALS
30 ROAD
COLORADO
RIVER
HORSETHIEF
RIVER
N
GRAND
JUNCTION
COLORADO
GUNNISON
RIVER
CLYMER PROPERTY
MCID/PID
LATERALS
COLORADO RIVER BASIN SALINITY
CONTROL PROJECT – TITLE II
IDAHO
WYOMING
UTAH
COLORADO
ARIZONA
NEW
MEXICO
TEXAS
KEY MAP
1 0 1 2 3 4 5
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
COLORADO RIVER BASIN SALINITY
CONTROL PROJECT
TITLE II
GRAND VALLEY UNIT
COLORADO

Colorado River Basin Salinity Control Project
Grand Valley Unit, Title II
Colorado

Location This unit is located in Mesa County in western Colorado at the confluence of the Gunnison and Colorado Rivers near Grand Junction.

Description Irrigation in the entire valley area encompasses 70,500 acres, with 200 miles of canals and approximately 500 miles of laterals, most of which are earth lined. Much of the land has been irrigated for more than 50 years, and it is estimated that the Grand Valley contributes about 580,000 tons of salt annually to the Colorado River. Investigations indicated that lining canals, lining or piping laterals, rehabilitating or replacing canal and lateral structures, and constructing adequate measurement control devices could reduce the salt contribution 161,400 tons per year while the irrigation management scheduling and on farm improvements should result in an additional reduction of 130,000 tons per year. Stage I consisted of concrete lining 6.8 miles of the West Government Highline Canal and placing 30 miles of adjacent laterals in pipe. Stage II lines portions of the remainder of the Government Highline Canal and by placing pipe in 110 miles of Federally owned laterals and approximately 214 miles of privately owned laterals.

Authorization Public Law 93-320, June 24, 1974; Public Law 98-569, October 30, 1984; and Public Law 104-20, July 28, 1995.

Land certification None required.

Definite plan report Stage I approved March 25, 1980; Stage II approved July 11, 1986. An addendum was completed December 20, 1990, for the Price and Stubb Ditches.

Benefit cost ratio as of October 1, 1996 Previous agreements with the Mexican Government concerning salinity control in the Colorado River and Public Law 93-320 are based upon social and political justifications. Public Law 98-569 required construction preference be given to those projects that reduced salinity at the least cost. The cost effectiveness of this unit is measured in terms of annual cost for each milligram per liter (mg/L) of salinity reduction in the Colorado River at Imperial Dam. The annual cost of the unit is $21,946,000 which includes the total investment annual equivalent cost of $21,226,000 at 7.75 percent for 50 years, plus the annual OM&R of $720,000. The increase in the OM&R is due to completion of construction of the project and new features being placed in operation and maintenance status. This figure represents actual costs rather than projected cost indexing. The annual removal of 161,400 tons of salt from the Colorado River at Grand Valley results in a salinity reduction at Imperial Dam of 14.7 mg/L. The annual cost per ton is $136. The decrease in annual cost per ton is due to a decrease in investment annual equivalent cost.

Grand Valley Unit, Title II . . . .

Completion data As of September 30, 1995 the project as originally authorized is 54 percent complete. The ongoing work will be completed in 1998 within the existing appropriation ceiling. The remaining activities are being reevaluated.

Summarized Financial Data

Total Federal obligations			
Reclamation	$256,878,000	Allotments to 9/30/95	$145,353,156
Other Federal	- 0 -	Allotments for FY 1996	5,799,000
Net property and other transfers			
Federal participation	325,000	Allotments to date	151,152,156
Non-Federal participation	- 0 -	Allotments for FY 1997	5,500,000
Adjustments	- 0 -		
Total to be allocated	$257,203,000	Balance after FY 1997 1/	$100,225,844

1/ Major portions of the project have been deferred. Less costly alternatives for salt removal will be explored under the Title II - Basinwide Project.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Salinity control	$257,895,000	$257,203,000

Cost allocation methodology The method of cost allocation has not been modified. The decrease of $692,000 in total costs is due to new cost estimates for miscellaneous minor contracts, -$240; a revision of the estimated contract costs for the Moss Screen Near Cameo, -$1,462,000; the deletion of the Moss Screen and Grand Valley Start, -$1,266,941; a new analysis of noncontract costs for all features, -$5,376,225; partially offset by an increase in the final cost of the East Government Highline Canal, $268,592; a program change in the Wildlife Plan, $2,460,695; indexing increases of $3,259,627; a revision of the estimated contract costs for the Lateral System features of $1,183,364; and a revision of the estimated contract costs for the Price and Stubb Ditch, $241,128.

Project Repayment

Repaid by	Amount
Lower Colorado River Basin	$ 54,592,000
Upper Colorado River Basin Fund	9,634,000
Non-reimbursable	192,977,000
Total	$257,203,000 1/

1/ Public Law 93-320, Section 205, states that 75 percent of the costs will be nonreimbursable. The remaining 25 percent is divided between the Lower Colorado River Basin Development Fund and the Upper Colorado River Basin Fund based on benefits derived by each Basin from the use of water of improved quality, causes of salinity, and availability of revenues, provided that costs allocated to the Upper Basin shall not exceed 15 percent of the costs allocated to the Upper and Lower Basin Funds. The costs to which these percentages are applied do not include $300,000 of preauthorization investigation costs which are nonreimbursable.

Status repayment contract None required.

Irrigation investment per acre Not applicable.

Status of NEPA compliance Project wide–Negative determination for Grand Valley System Stage I, July 4, 1978. Stage II environmental statement to Environmental Protection Agency, final May 23, 1986. Final environmental assessment for Price and Stubb Ditches, August 15, 1990. Draft environmental assessment on East End Government Highline Canal June 21, 1991; final August 31, 1991.

Other information The intent of Congress is to remove salt from the Colorado River by the most economical means. Incremental authorized units may or may not be constructed depending upon the amount of salt needed to be removed as indicated in The Joint Evaluation Report of Interior and Agriculture.

Appropriation ceiling Appropriations authorized are $298,468,000 (October 1996) for Title II of the Colorado River Basin Salinity Control Projects under Public Law 93-320. The comparable Federal obligation is $743,970,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation. Ongoing work can be completed within the existing ceiling. Appropriate Congressional committees will be advised of the appropriation ceiling status for this project. Current commitments will be held within the existing ceiling.

Grand Valley Unit, Title II . . . .

Work proposed for FY 1997	**Grand Valley Unit Canal System** - Minor work to complete the Price and Stubb ditches will continue.	$5,000
	Grand Valley Unit Lateral System - Construction will continue on the Grand Valley Water Users Association laterals A1-A33 on Mesa County Irrigation District/Palisade Irrigation District Laterals.	$3,717,000
	Wildlife Plan - Land acquisition and development will continue on 30 Road Development, Clymer Property Development, On-Farm Mitigation and Horsethief Conservation State Wildlife Area.	$1,778,000
	Total request	$5,500,000

Colorado River Basin Salinity Control Project
Title II - Basinwide Program
Colorado, New Mexico, Utah, Wyoming

Location Projects in the Upper Colorado River Basin to improve water quality in the Lower Colorado River Basin.

Description The program is designed to limit further degradation of water quality in the Colorado River Basin. The program is cost shared by the Federal government in proportion to the amount of salinity originating from Federal lands. The goal of the program is to seek the most cost-effective solution to the problem, rather than impose ineffective and costly solutions on each source (including Federal sources).

Reclamation's participation in the program is essential because of its water management role in the Basin and its municipal and agricultural water users in the Lower Basin are greatly impacted by water quality degradation. Irrigation sources have generally been the most cost-effective sources to control. So far, water conservation has been the program's most effective tool in controlling salinity increases.

Public Law 104-20, enacted July 28, 1995, authorizes Reclamation to take advantage of new, cost-effective opportunities to control salinity. In 1993, the Inspector General found that the unit-specific authorities, provided by earlier legislation, were preventing Reclamation from implementing other cost-effective projects within the Basin. With passage of enabling legislation, Reclamation may now manage the program to take advantage of the most cost-effective opportunities to control salinity, as they arise.

Authorization Public Law 93-320, June 24, 1974; Public Law 98-569, October 30, 1984; and Public Law 104-20, July 28, 1995.

Land certification None required.

Definite plan report None required.

Benefit cost ratio as of October 1, 1996 Previous agreements with the Mexican government concerning salinity control in the Colorado River and Public Law 93-320 are based upon social and political justifications. Public Law 98-569 required construction preference be given to those projects that reduced salinity at the least cost.

Completion data Initiation: FY 1996 Completion: As required

Title II, Basinwide Program . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$75 ,000,000	Allotments to 9/30/95	$ - 0 -
		Allotments for FY 1996	500,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	500,000
Non-Federal participation	- 0 -	Allotments for FY 1997	5,000,000
Adjustments	- 0 -		
Total to be allocated	$75,000,000	Balance after FY 1997	$69,500,000

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Salinity Control	to be determined	$75,000,000

Cost allocation methodology Not applicable.

Project Repayment

Repaid by	Amount
Lower Colorado River Basin	$ 19,125,000
Upper Colorado River Basin Fund	3,375,000
Non-reimbursable	52,500,000
Total	$75,000,000 1/

1/ Public Law 93-320, Section 205, states that 70 percent of the costs will be nonreimbursable. The remaining 30 percent is divided between the Lower Colorado River Basin Development Fund and the Upper Colorado River Basin Fund based on benefits derived by each Basin from the use of water of improved quality, causes of salinity, and availability of revenues, provided that costs allocated to the Upper Basin shall not exceed 15 percent of the costs allocated to the Upper and Lower Basin Funds.

Status repayment contract None required.

Irrigation investment per acre Not applicable.

Status of NEPA compliance All NEPA requirements will be complied with as needed.

Other information The competitive format of the new program will encourage local participants to help reduce the programs' costs through cost sharing and innovation.

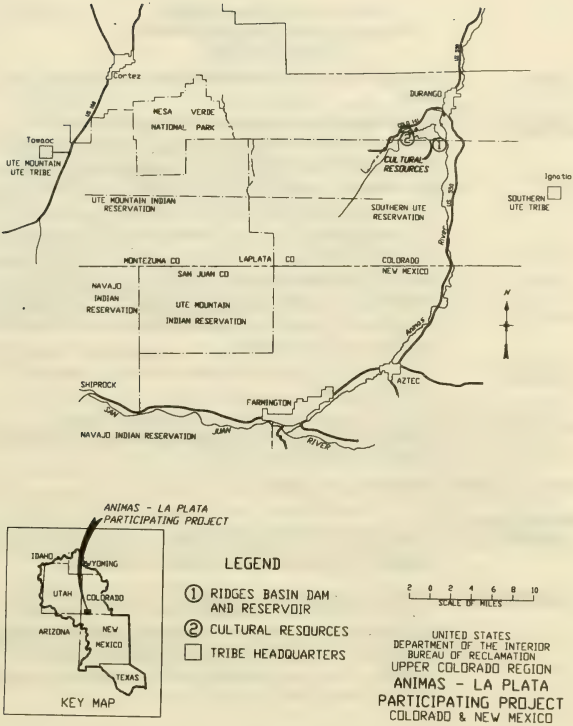
Appropriation ceiling Public Law 104-20 of July 28, 1995 added $75,000,000 of appropriation authority for Title II of the CRBSCP.

Work proposed for FY 1997 Reclamation has developed a plan to competitively rank and fund projects throughout the Basin. The ranking process will run through FY 1996. Awards are scheduled for FY 1997. Many of the proposals are expected to be locally implemented variations of projects planned by Reclamation, but may include totally new projects. Some projects, which may have been too expensive in the past, may now be cost shared by local interests or other programs to improve their competitiveness.

Reclamation has completed reports on numerous areas within the Basin which may be used to develop proposals. These reports include the Big Sandy Unit in Wyoming, Price-San Rafael and Uinta Basin Units in Utah, Glenwood-Dotsero and Grand Valley and Lower Gunnison Basin Units in Colorado, San Juan River Unit in New Mexico, and several saline water use opportunity studies for private industry.

The proposals will be ranked by an evaluation team consisting of Reclamation and Basin State representatives. Proposals will be ranked and selected based on their cost effectiveness (cost per ton of salt removal) and performance risk factors.

Total request	**$5,000,000**


Cortez
US 160
Towaoc
UTE MOUNTAIN
UTE TRIBE
MESA VERDE
NATIONAL PARK
DURANGO
COLO 141
①
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CULTURAL RESOURCES
US 550
Ignatio
SOUTHERN UTE TRIBE
SOUTHERN UTE RESERVATION
UTE MOUNTAIN INDIAN RESERVATION
River
MONTEZUMA CO
LAPLATA CO
COLORADO
NEW MEXICO
SAN JUAN CO
NAVAJO INDIAN RESERVATION
UTE MOUNTAIN INDIAN RESERVATION
N
Animas
AZTEC
SHIPROCK
SAN
FARMINGTON
NAVAJO INDIAN RESERVATION
JUAN
RIVER
ANIMAS - LA PLATA PARTICIPATING PROJECT
IDAHO
WYOMING
UTAH
COLORADO
ARIZONA
NEW MEXICO
TEXAS
KEY MAP
LEGEND
① RIDGES BASIN DAM AND RESERVOIR
② CULTURAL RESOURCES
☐ TRIBE HEADQUARTERS
2 0 2 4 6 8 10
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
ANIMAS - LA PLATA
PARTICIPATING PROJECT
COLORADO & NEW MEXICO

Colorado River Storage Project
Animas-La Plata Participating Project
Colorado, New Mexico

Location	This project is located in southwestern Colorado and northwestern New Mexico.
Description	The authorized project would provide 80,100 acre-feet annually of municipal and industrial (M&I) water supplies. This project is designed to satisfy the requirements of the Colorado Ute Indian Water Rights Settlement Act of 1988. New M&I water supplies of 7,600 acre feet would be provided for the Navajo Tribe; 6,000 acre-feet for the Ute Mountain Ute Tribe; and 26,500 acre-feet for the Southern Ute Indian Tribe. M&I water of 9,200 acre feet would also be provided for Colorado non-Indians (for Durango and La Plata and adjacent rural areas) and 30,800 acre-feet for New Mexico communities and rural areas. The project would provide a full water supply for the irrigation of 11,980 acres of Ute Mountain Ute Indian tribal land, 31,500 acres of non-Indian land in Colorado, 1,800 acres of Southern Ute Indian Reservation tribal land, and 4,530 acres of non-Indian land in New Mexico. A supplemental supply would be provided for 17,650 acres of presently irrigated land. Benefits would also result from recreation and fish and wildlife enhancement.
Authorization	Public Law 90-537, September 30, 1968, and Public Law 100-585, November 3, 1988.
Land certification	January 19, 1982. As required by Public Law 99-294 (1986), a supplemental trace element assessment was completed for the arable land area of the Animas-La Plata Project.
Definite plan report	Approved August 18, 1980.
Benefit-cost ratio as of October 1, 1996	In response to the Inspector General's report, Reclamation has updated its economic analysis. This analysis and a range of benefit-cost ratios was shared with Congress in July 1995 and continues to be refined.
Completion data	A cost-sharing agreement was signed with State, Federal, and Tribal entities on June 30, 1986, providing that Phase I of the project would be constructed in not less than 12 years from initial construction. In order to meet the deadlines contained in the 1986 Colorado Ute Indian Water Rights Settlement Act and to honor its trust responsibilities, the Bureau of Reclamation must show substantial progress in completion of Ridges Basin Dam and Collection System in the next few years.

Animas-La Plata . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$437,743,500	Allotments to 9/30/95	$52,979,737
Recreational/F&W 1/	43,353,000	Allotments for FY 1996	10,000,000
Net property and other transfers			
Federal participation 2/	2,097,000	Allotments to date	62,979,737
Non-Federal participation 3/	207,336,500	Allotments for FY 1997 5/	9,500,000
Adjustment 4/	24,217,000		
Total to be allocated	$714,747,000	Balance after FY 1997	$365,263,763

1/ Includes recreation costs of $14,000,000; fish and wildlife mitigation costs of $13,500,000; wetland mitigation costs of $17,000,000; and water quality mitigation costs of $470,000; less cash contributions by the State of Colorado of $1,617,000 for Phase I. Phase II facilities are the responsibility of non-Federal entities.

2/ Represents estimated total of costs transferred to or from the project without exchange of funds.

3/ Cash contributions for advance planning of $24,500 which includes $10,000 from Colorado Water Conservation Board; $7,500 from Southwest Water Conservancy District; $2,000 from city of Durango; $2,000 from La Plata County; $1,850 from La Plata Water Conservancy District, Colorado; $650 from La Plata Conservancy District, New Mexico; and $500 from Southern Ute Tribe. Phase I construction non-Federal cash contributions total $68,202,000 as follows: $42,400,000 from Colorado Water Resources and Power Development Authority; $12,777,000 from San Juan Water Commission; $7,375,000 from Animas-La Plata Water Conservancy District; $5,600,000 from State of Colorado; and $50,000 from Montezuma County. Phase II, to be financed and constructed by non-Federal entities at an estimated cost of $139,110,000 includes $130,250,000 for remaining irrigation features, $3,900,000 for recreation, $160,000 for fish and wildlife facilities, and $4,800,000 for cultural resources activities.

4/ Represents reimbursable interest during construction at 9.226 percent for municipal and industrial water facilities Federally financed during construction.

5/ Another $500,000 is requested for FY 1997 as part of CRSP, Section 8, for a total of $10 million, and is shown under the Recreational and Fish and Wildlife Program line item.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation	$517,054,000	$503,746,000
Municipal & industrial 1/	119,442,000	120,826,000
Recreation	12,000,000	17,900,000
Fish and wildlife	38,662,000	47,475,000
Other 2/	23,100,000	24,800,000
Total	$710,238,000	$714,747,000

1/ Includes $24,217,000 reimbursable interest during construction based on the current Colorado River Storage Project interest rate.

2/ Nonreimbursable cultural resources activities.

Cost allocation methodology The cost allocation tables in this justification represent the same allocation methodology as shown in the FY96 justification. A revised methodology, based upon the June 1995 analysis, is still being refined. The increase of $4,509,000 in total cost as compared to the FY 1996 Budget Justifications was due to indexing from October 1995 price levels to October 1996 price levels.

Project Repayment

Repaid by	Amount
Irrigators	$ 20,430,000
Ad valorem tax	27,817,000
M&I 1/	94,875,000
Cost-sharing 2/	207,312,000
UCRBF revenue 3/	280,668,000
Contributed funds 4/	254,000
CRDF 5/	654,000
Leavitt Act 6/	6,322,000
Nonreimbursable 7/	76,415,000
Total	$714,747,000

1/ By 1991, Reclamation had entered into repayment contracts with two non-Indian project beneficiaries. The La Plata Conservancy District, New Mexico, which will not receive water from the initial facilities, will execute its repayment contract at a later date.

2/ Agreement between the Federal government and the States of Colorado and New Mexico totaling $207,312,000 consisting of cash contributions of $68,202,000 and credit for non-Federal construction of deferred facilities $139,110,000. Funds were assigned by purpose for repayment as follows: Irrigation, $167,875,000; M&I, $25,677,000; Recreation, $4,804,000; Fish and Wildlife, $2,512,000; and Cultural Resources, $6,444,000.

3/ Repaid from net power revenues which are allocated to Upper Colorado River Basin Fund Revenues, apportioned to States of Colorado at $247,779,000 and New Mexico at $32,889,000.

4/ Includes $229,500 for General Investigations and $24,500 for Advance Planning which are allocated $146,000 for irrigation and $108,000 for M&I.

5/ Colorado River Development Fund investigation costs of $654,000 including $488,000 for irrigation and $166,000 for M&I.

6/ Amortization capacity for Indian irrigation. Repayment will be deferred as long as the land is in Indian-ownership.

7/ Includes $17,900,000 for recreation facilities, $17,000,000 for wetland mitigation, $470,000 for water quality mitigation, $13,660,000 for fish and wildlife mitigation facilities, $16,345,000 for fish and wildlife enhancement and $24,800,000 for cultural resources activities less the amounts assigned by the cost-sharing agreement as follows: Phase I non-Federal financing $4,900,000 and Phase II non-Federal financing $8,860,000.

Status of repayment contract Agreements with non-Federal entities were executed June 30, 1986. The repayment contract with the Animas-La Plata Water Conservancy District, Colorado, was validated on April 20, 1988, and with the San Juan Water Commission, New Mexico, on August 16, 1991. Contract negotiations with the Navajo Tribe and the La Plata Conservancy District, New Mexico, will be initiated after construction begins. Repayment contracts have been negotiated with the Southern Ute and the Ute Mountain Ute Indian tribes, and approved as to form by both tribal councils.

Irrigation investment per acre

Summary of Irrigation Investment

Irrigation investment/acre	$7,467
Repayment of irrigation investment per acre by Irrigators	$303
Cost-sharing agriculture	2,489
UCRBF revenues	4,160
Ad valorem tax	412
CRDF & contract funds	9
Indian irrigation (deferred)	94
Payment capacity per acre and/or acre-foot under Public Law 98-541 not applicable	
Annual charges (per acre)	$64.80
Construction	9.90
Operation and Maintenance	54.90

Status of NEPA compliance A project-wide final environmental impact statement was filed with Environmental Protection Agency July 1, 1980. In April 1992, the decision was made to supplement this document. The final supplement to the Final Environmental Statement is scheduled to be filed with the Environmental Protection Agency in 1996.

Other information The Animas-La Plata project as authorized would be developed in two Phases: Phase I provides irrigation service for 42,815 acres, municipal and industrial water service, and some recreation and fish and wildlife features with a total estimated cost of $551,420,000 (October 1996 price levels). Physical features are described later in this section. Phase II would be financed and constructed by non-Federal entities, including remaining irrigation features, recreation, fish and wildlife facilities, and cultural resources activities.

On October 25, 1991, the Fish and Wildlife Service issued a final biological opinion for the Animas-La Plata Project on Federally listed endangered species. The final biological opinion contains a reasonable and prudent alternative that, in the opinion of the Service, would avoid the likelihood of jeopardy to the Colorado squawfish. The final opinion replaced the draft biological opinion issued on May 7, 1990, which stated that the project was likely to jeopardize the continued existence of the Colorado squawfish. Due to updated information regarding the Colorado squawfish and razorback sucker and designation of their critical habitat, on June 2, 1995, Reclamation requested reinitiation of formal consultation for the project. A final biological opinion was issued on February 26, 1996.

Construction of project features in Phase I would be in two stages. Stage A would include Ridges Basin Dam and Reservoir, Ridges Basin Inlet Conduit, and Durango Pumping Plant, and would not be initiated before completion of the Final Supplement to the Final Environmental Statement, a record of decision, and a notice to start construction. Stage B as proposed includes Southern Ute Diversion Dam, Red Mesa Pumping Plant, Dry Side Canal, Long Hollow Tunnel, Southern Ute Inlet and Interim Irrigation Canal, and a number of laterals and drains.

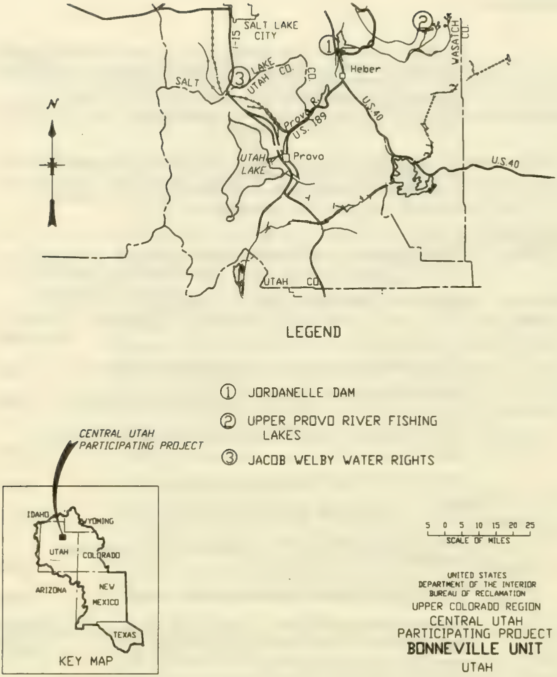
Appropriation ceiling Appropriations authorized are $1,448,854,000 (October 1996) for this and other projects authorized under Title V of Public Law 90-537. The projects authorized under this title include, in addition to Animas-La Plata, Dolores, Dallas Creek, San Miguel, and West Divide. The comparable estimated total Federal obligation for these projects is $1,772,635,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation for the completion of all projects. As there are presently no plans to commit substantial federal funds for the San Miguel and the West Divide projects, current commitments will be held within the existing ceiling.

In response to the Office of the Inspector General's audit recommendations in its review of the Hoover Visitor Facilities Program, the appropriation ceiling for the Colorado River Storage Project has been reexamined and reestimated by participating project. The partitioned ceiling calculation for the Animas-LaPlata Project is $474,648,000 (October 1996). The estimated total Federal obligation for work on the Animas-LaPlata Project is $481,096,500 which does not exceed the partitioned ceiling by the amount of contingencies included in the estimate.

The estimates used for the ceiling computation by the separate Colorado River Storage Project participating units are approximate. Further analysis is required to refine these estimates. The situation will be analyzed periodically as new data becomes available.

Work proposed for FY 1997

Ridges Basin Dam and Collection System - Contracts for Northwest Gas Pipeline Relocation and Outlet Works Ridges Basin Dam, Phase I, Stage A are scheduled to be awarded. Construction activities will continue on Ridges Basin Dam Phase !, Stage A Foundation and the Northwest Pipeline Corridor. Land acquisition activities for Ridges Basin will continue.	**$ 10,414,000**
Ridges Basin Delivery System - Preconstruction will continue.	**23,000**
Ridges Basin Irrigation System - Preconstruction will continue.	**139,000**
Southern Ute Dam/Collection System - Preconstruction activities will continue.	**109,000**
Southern Ute Irrigation System - Preconstruction will continue.	**44,000**
Drains - Preconstruction activities will continue.	**13,000**
Permanent Operating Facilities - Begin acquisition of permanent operating equipment for Phase I.	**6,000**
O&M Housing - Preconstruction activities will continue.	**2,000**
Service Facilities, Depreciation, and Salvage - Preconstruction activities and the acquisition of office and field equipment will continue.	**150,000**
Other Project Costs - Cultural resources mitigation, environmental compliance work, and endangered species studies will continue.	**500,000**
Non-Federal Contributions	**- 1,900,000**
Total request	**$ 9,500,000**



LEGEND

① JORDANELLE DAM

② UPPER PROVO RIVER FISHING LAKES

③ JACOB WELBY WATER RIGHTS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
CENTRAL UTAH
PARTICIPATING PROJECT
BONNEVILLE UNIT
UTAH

Colorado River Storage Project
Central Utah Participating Project
Bonneville Unit
Utah

Location The Reclamation portion of this unit is located in central Utah, the eastern part of the Bonneville Basin, and in the western part of Uinta Basin in Uintah, Duchesne, Wasatch, Summit, Utah, and Salt Lake Counties, Utah.

Description The Bonneville Unit as currently authorized is multipurpose in scope. The Reclamation portion of the project would provide a supplemental water supply to 49,190 acres of partially irrigated lands, and 90,500 acre-feet of water annually for municipal and industrial use. The project will also provide benefits to fish and wildlife, recreation, and flood control. Crops presently grown are alfalfa and small grains, corn, deciduous fruit, and pasture. It is anticipated that with project development the same crops will be grown.

Authorization Public Law 84-485, April 11, 1956; Public Law 92-370, August 10, 1972; and Public Law 100-563, October 31, 1988, and Public Law 102-575, October 30, 1992.

Land certification All land certification except the Irrigation and Drainage System, which is to be constructed by the Central Utah Water Conservancy District, was completed December 28, 1965.

Definite plan report Approved November 5, 1965.

Benefit-cost ratio as of October 1, 1996 Direct benefits 1/

1/ Since the revised project allocations are not available, the benefit/cost ratio cannot be calculated.

Completion data As of September 30, 1995, the Reclamation portion of the project as currently authorized was 97 percent complete. Supplemental water is available to 49,190 acres, and facilities have been completed to provide municipal and industrial water of 20,500 acre-feet annually. Completion of one of the four major components (Collection System) of this project is scheduled in 1996 which represents no delay as presented in the FY 1996 Budget Justifications. However, the Jacob-Welby water exchange portion of the Municipal and Industrial System will not complete until 1999. This reflects a delay of two years as presented in the FY 1996 Budget Justifications due to funding limitations. Reclamation's portion of the Diamond Fork System is scheduled for completion in 1996.

Bonneville Unit . . . .

Summarized Financial Data

Total Federal obligations	$1,231,301,000	Allotments to 9/30/95	$1,205,374,621
Recreation/F&W 1/	94,990,000	Allotments for FY 1996	13,369,000
Net property and other transfers			
Federal participation 2/	6,495,840	Allotments to date	1,218,743,621
Non-Federal participation 3/	10,943,424	Allotments for FY 1997	7,465,000
Adjustments 4/	92,029,000		
Total to be allocated	$1,435,759,264	Balance to complete	$5,062,379

1/ Includes specific fish and wildlife obligations of $27,798,572 and specific recreation obligations of $63,943,724 and $3,125,917 for Big Game Range transfers to the State of Utah, Department of Natural Resources and $121,787 for other transfer for Fish and Wildlife Program.

2/ Includes net property and other transfers of $3,248,136 in the Section 5 Program, $3,125,917 in the Recreation Program and $121,787 in the Fish and Wildlife Program.

3/ Includes advances from the Central Utah Water Conservancy District of $10,067,424 and construction revenues of $876,000.

4/ Represents reimbursable interest during construction for municipal and industrial water facilities $86,455,000 and power $5,574,000. The power costs are for facilities previously planned but are not to be built because of insufficient demand for hydroelectric power.

Project Cost Allocation

Allocation	FY 1996 estimate 1/	FY 1997 estimate 1/
Irrigation		
Power		
Municipal and industrial water		
Recreation		
Fish and wildlife		
Flood control		
Highway improvement		
Total	$1,435,079,809	$1,435,759,264

1/ Since the revised allocation is not available, the cost allocation to the project functions cannot be determined.

Cost allocation methodology Public Law 102-575 delegated responsibility for completion of the Bonneville Unit to the Secretary of the Interior with the restriction that it could not be delegated to Reclamation. The Public Law gave authority to the Central Utah Water Conservancy District to complete the Irrigation and Power portions of the Project and assigned a newly created Utah Reclamation Mitigation and Conservation Commission the responsibility to complete all mitigation and new enhancement features authorized by the Act.

Feature costs, purposes, cost-sharing amounts, and repayments for the Central Utah Water Conservancy District portion of the Project are not known at this time. Feature costs for the Commission portion of the Project are also not known. Due to these unknowns, project allocations and repayments cannot be presented. Reclamation's portion of the project cannot be allocated as many of the features constructed are multi-purpose and the allocations and repayments are dependent upon the final purposes of the entire project.

Project Repayment 1/

Repaid by	Amount
Irrigators	
Power	
Municipal & industrial water	
UCRBF power revenues	
CRDF contributions and other	
Ad valorem tax revenue	
Nonreimbursable	
Total	$1,435,759,264

1/ Since the revised allocation is not available, the repayment by function cannot be determined.

Status of repayment contract

A repayment contract with the Central Utah Water Conservancy District was executed on December 28, 1965, and validated February 17, 1966. The contract was amended on April 15, 1966. A supplemental repayment contract with the Central Utah Conservancy District for the remainder of the municipal and industrial water costs, excluding 66 percent of Jordan Aqueduct costs was executed November 26, 1985.

Repayment contracts with the Salt Lake County Conservancy District and Metropolitan Water District of Salt Lake City for 66 percent of Jordan Aqueduct costs were executed November 26, 1985, and validated on February 10, 1986.

Of the amount to be repaid, $484,418,000 is covered by an existing contract with the Central Utah Water Conservancy District for both irrigation and municipal and industrial water, and includes repayment by ad valorem tax revenues and contributions. The balance of $45,688,000 to be repaid for municipal and industrial water is being repaid by a contract with the Metropolitan Water Conservancy District of Salt Lake City and Salt Lake County Conservancy District which was signed on May 16, 1986.

Legislation is being proposed that would authorize the prepayment of contracts for the repayment of costs associated with municipal and industrial water delivery facilities of the Central Utah Project. This legislation is projected to increase receipts to the Treasury by $75 million in FY 1997.

Irrigation investment per acre

Summary of Irrigation Investment 1/

Total irrigation investment / acre

Repayment of irrigation investment per acre by:
  Irrigators
  Power revenues
  M&I users
  UCRB revenues
  Ad valorem tax
  CRDF & contract funds
  Indian irrigation (deferred)

Payment capacity per acre and/or acre-foot
Annual charges (per acre)
  Construction

1/ Since the revised allocation is not available, the irrigation investment per acre, the annual charges per acre or acre-foot, and repayment of the irrigation investment per acre cannot be determined.

Status of NEPA compliance

The Diamond Fork Power System, final environmental statement was filed with the Environmental Protection Agency on October 4, 1984. The final supplement Diamond Fork System was filed on February 22, 1990. A Finding of No Significant Impact was signed on May 21, 1984, for the Duchesne River Area Canal System Rehabilitation.

The final environmental statement for the collection system was filed with the Council on Environmental Quality August 2, 1973. The Municipal and Industrial Water System final environmental statement was filed with the Environmental Protection Agency October 25, 1979. NEPA compliance on project features authorized in Public Law 102-575 will be completed by the Central Utah Water Conservancy District or the Utah Reclamation Mitigation and Conservation Commission.

Other information

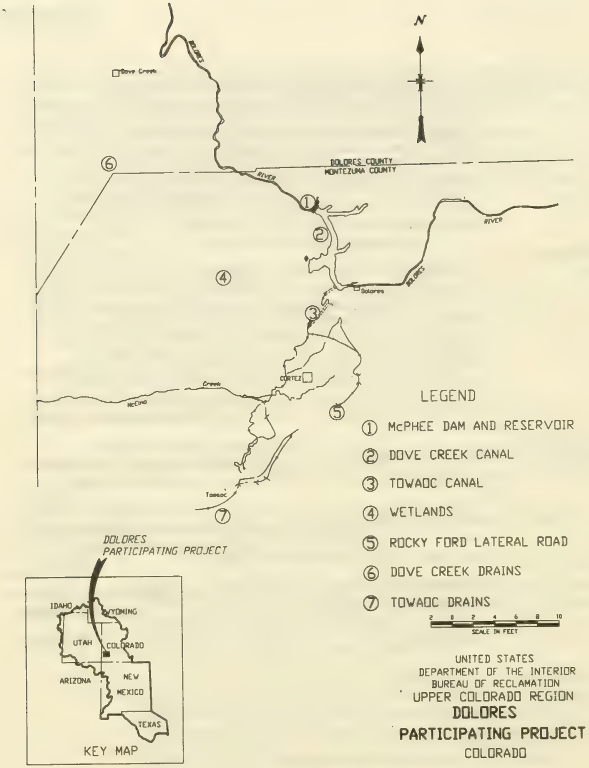
Funds to initiate preconstruction planning were appropriated in FY 1957 and for construction in FY 1966. In the initial planning of the Central Utah Project, irrigation development of 15,242 acres of Indian land was to occur as part of the initial phase of the Central Utah Project in the Uintah Basin. In the Definite Plan Report of the Bonneville Unit, Central Utah Project, the Ute Indian Tribe deferred current use of its water for later irrigation development of 15,242 acres of land so that construction of the Bonneville Unit could proceed. The Ute Indian Tribe passed a resolution dated August 18, 1975, urging that development of Indian facilities proceed concurrently with development of non-Indian facilities.

Appropriation ceiling

In response to the Office of the Inspector General's audit recommendations in its review of the Hoover Visitors Facility Program, the CRSP ceiling has been reexamined and reestimated by major unit. The project currently is planned to be completed within the existing ceiling. No increase to the appropriations authorized is intended. Appropriations authorized are $1,348,290,000 (October 1996) for the Reclamation portion of the Bonneville Unit, Central Utah Project under Public Law 84-485, Public Law 92-370, Public Law 100-563 and Public Law 102-575. The current estimate of the comparable Federal obligation to complete the authorized project is $1,347,007,000 which does not exceed the appropriation ceiling.

Work proposed for FY 1997

Soldier Creek Dam, Strawberry Reservoir Enlargement, and Collection Works - Operation and maintenance of collection system will continue.	**$300,000**
Jordanelle Dam - Monitoring of the dam during filling of the reservoir will continue. Minor completion work will continue. Land condemnation for Mayflower Stitching-Olsen Neihart will complete.	**$3,615,000**
Jacob-Welby Water Rights - Payment for the Jacob-Welby water rights exchange will continue.	**$3,580,000**
Total request	**$7,495,000**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Dove Creek
DOLORES
RIVER
DOLORES COUNTY
MONTEZUMA COUNTY
RIVER
DOLORES
Dolores
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Creek
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DOLORES
PARTICIPATING PROJECT
IDAHO
WYOMING
UTAH
COLORADO
ARIZONA
NEW
MEXICO
TEXAS
KEY MAP
LEGEND
① McPHEE DAM AND RESERVOIR
② DOVE CREEK CANAL
③ TOWAOC CANAL
④ WETLANDS
⑤ ROCKY FORD LATERAL ROAD
⑥ DOVE CREEK DRAINS
⑦ TOWAOC DRAINS
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SCALE IN FEET
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
DOLORES
PARTICIPATING PROJECT
COLORADO

Colorado River Storage Project
Dolores Participating Project
Colorado

Location	The project is located in Montezuma and Dolores Counties in southwestern Colorado.
Description	The project consists of McPhee Dam and Reservoir, Great Cut Dike, six pumping plants, 94 miles of canals and tunnels, 102 miles of lateral pipe systems, and the McPhee and Towaoc Powerplants. Service is provided to the northwest Dove Creek area, the central Montezuma Valley area, and south to the Towaoc area on the Ute Mountain Ute Indian Reservation. This is a multipurpose project which will provide 12,750 kilowatts of installed power generating capacity, and 8,700 acre-feet annually of municipal and industrial water supplies including new municipal and industrial supply for the Ute Mountain Ute Indians. The project will provide a full water supply for the irrigation of 27,860 acres of land in the Dove Creek area and 7,500 acres located on the Ute Mountain Ute Indian Reservation near Towaoc. A supplemental supply will be provided for 26,300 acres of presently irrigated land. Lining and combining canal systems of the Montezuma Valley Irrigation Company (MVIC) will reduce salt loading by 24,500 tons. Since irrigation of new lands in the Dolores Project would increase salt loading 50,650 tons, the net effect of the Dolores Project on salt loading would be to add 26,150 tons of salt to the Colorado River annually. Project benefits include recreation and fish and wildlife enhancement. Crops grown in the full service area presently under dry farming are pinto beans and wheat. It is anticipated that with project water there will be an increase in production of alfalfa, small grains, corn and pasture similar to the adjacent irrigated lands.
Authorization	Public Law 90-537, September 30, 1968; and Public Law 98-569, October 30, 1984.
Land certification	June 28, 1977.
Definite plan report	Definite Plan Report approved July 5, 1977, first supplement approved January 8, 1982, second supplement approved March 24, 1989.
Benefit-cost ratio as of October 1, 1996	Direct benefits 0.9 No change from FY 1996 Budget Justifications.
Completion data	The scheduled completion date is 1998. No change from the FY 1996 Budget Justifications. As of September 30, 1995, the project was 97 percent complete.

Dolores Project . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$549,262,000	Allotments to 9/30/95	$527,350,353
Recreational/FWL 1/	21,389,000	Allotments for FY 1996	3,470,000
Net property and other transfers			
Federal participation	-3,410,000	Allotments to date	530,820,353
Non-Federal participation	- 0 -	Allotments for FY 1997	6,115,000
Adjustments 2/	7,578,000	Balance to complete 3/	$12,326,647
Total to be allocated	$574,819,000		

1/ Represents specific recreation costs of $15,867,000 and fish and wildlife mitigation costs of $4,651,000, and fish and wildlife enhancement costs of $871,000.

2/ Represents reimbursable interest during construction of $3,212,000 for power, $4,162,000 for municipal and industrial water facilities, and $204,000 for salinity control at the Dolores authorized project rate of 6.063 percent.

3/ Reclamation has concluded discussions with the Dolores Water Conservancy District, and other non-Federal interests to determine the scope and reduce the cost of work to complete the project. A new BTC is not yet determined, but will be smaller than that shown.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation	376,830,000	374,096,000
Power	23,565,000	23,395,000
Municipal and industrial water	17,875,000	17,744,000
Recreation	15,867,000	15,867,000
Fish and wildlife	76,437,000	75,922,000
Highway improvement	1,513,000	1,513,000
Salinity control	43,413,000	44,010,000
Other 1/	22,266,000	22,272,000
Total	$577,766,000	$574,819,000

1/ For nonreimbursable cultural resource activities (Public Law 93-291 and Public Law 96-301). Increase is due to revised estimates of cultural resource mitigation and completion of Anasazi Heritage Center before turning it over to BLM.

Cost allocation methodology The methodology of cost allocation has not been modified from last year. The decrease of $2,947,000 in total costs include revised land requirements for Wetland Mitigation; revised contract estimates for Great Cut Dike Paving/Road, Outlet Works Guard Gate Repair, GIS Land

Scanning, Dove Creek Canal Erosion, Dove Creek Distribution System Roads, Dove Creek Canal Fence, MVIC Canal Lining, Towaoc Canal deficiencies, Dove Creek Area Drains, Towaoc Drains, DWCD Communications Link, $2,469,756; revised estimate for minor and noncontract costs $426,244; and interest during construction $51,000.

The allocation to **irrigation** decreased due to revised estimates for the remaining facilities. The allocation to **power** decreased due to revised estimates. The allocation to **municipal and industrial water** decreased due to revised estimates. The allocation to **salinity control** decreased due to revised estimates. The allocation to **other** increased due to revised estimate of cultural resources and indexing.

Project Repayment

Repaid by	Amount
Irrigators	$7,425,000
Power	23,363,000
M&I water	17,656,000
Amount repaid by LCRBDF/UCRBF	12,467,000
Apportioned UCRBF revenue	344,139,000
CRDF & other funds	607,000
Ad Valorem tax revenue	16,600,000
Amount deferred under Leavitt Act	5,445,000
Nonreimbursable 1/	147,117,000
Total	$574,819,000

1/ Includes $15,867,000 recreation costs, $75,922,000 fish and wildlife costs, $22,272,000 for cultural resources activities (Public Law 96-301), $1,513,000 highway improvement (Public Law 93-251) and $31,543,000 for salinity control (consisting of $2,930,000 for nonreimbursable general investigation costs under Public Law 92-149 and $28,613,000 for 70 percent of the salinity control construction costs (excluding interest during construction) which are nonreimbursable under Public Law 93-320, section 205).

Status of repayment contract

Repayment contract with Dolores Water Conservancy District was executed September 23, 1977, and validated September 23, 1977. Repayment contract with Ute Mountain Ute Indian Tribe was executed April 21, 1989.

The amount to be repaid by **irrigators** of $7,425,000 is covered by contract with the Dolores Water Conservancy District.

The repayment of **power investment** will be accomplished through existing contracts between the Western Area Power Administration and the power users generated by Colorado River Storage Project Power Rate (Schedule SLIP-F5) effective on December 1, 1994.

The amount to be repaid for 7,700 acre-feet of the project **municipal and industrial supply** of 8,700 acre-feet, is covered by an existing contract with Dolores Water Conservancy District. The remaining 1,000 acre-feet are assigned to the Ute Mountain Ute Indian Tribe and repayment is covered by an existing contract with the Tribe.

Public Law 92-149 and Public Law 93-320, section 205, as amended by Public Law 98-569, provides that 30 percent of the salinity control construction costs will be repaid by the **Lower Colorado River Basin Development Fund**, $10,423,000, with no interest during construction because payment is expected during construction, and **Upper Colorado River Basin Fund**, $1,840,000 for construction plus $204,000 for reimbursable interest during construction. These amounts are based on benefits to be derived by each Basin from the use of water of improved quality, causes of salinity, and availability of revenues, provided that costs allocated to the Upper Basin shall not exceed 15 percent of the construction costs allocated to the Upper and Lower Basin Funds. It also provides that all general investigation costs ($2,930,000) and 70 percent of all other salinity ($28,613,000) costs will be nonreimbursable.

The **Colorado River Development Fund (CRDF) and other funds** account includes $475,000 from the CRDF, $32,000 from the Bureau of Indian Affairs (BIA), and $100,000 contributed from Shell Oil Company toward construction of Bradfield Bridge and applied to irrigation costs. The Colorado River Development Fund will be prorated $56,000 for municipal and industrial water, $32,000 for power, and $387,000 for irrigation costs. The BIA funds will be applied toward repayment of the municipal and industrial obligation of the Indians.

The **ad valorem tax revenue** estimate uses a 1986 base ($140,875,000) to project future growth in the assessed valuation of the district.

Amortization capacity of Indian irrigation - The **Leavitt Act** permits repayment to be deferred as long as the land is in Indian-ownership.

Irrigation investment per acre

Summary of Irrigation Investment

Total irrigation investment/acre	$6,066
Repayment of irrigation investment	
per acre by Irrigators	$120
M&I users	- 0 -
Power revenues	- 0 -
UCRB revenues 1/	5,581
Ad Valorem tax	269
CRDF & contract funds	8
Indian Irrigation (deferred)	88
Payment capacity per acre and/or acre-foot	34.20
Annual charges (per acre)	
Construction	4.20
Operation and Maintenance	30.00

1/ The project cost allocation for irrigation decreased. Therefore, the requirement to repay the allocated costs by UCRB decreased.

Status of NEPA compliance Projectwide final environmental statement was filed with Council on Environmental Quality May 9, 1977. Draft supplement to the final environmental statement was filed March 2, 1988, and final supplement to the environmental statement was filed March 24, 1989.

Other information Funds to initiate advance planning were appropriated in FY 1970 and construction in FY 1977. Monument Creek Dam and Reservoir and related recreation and fish and wildlife improvement, and the Cortez-Towaoc Municipal and Industrial Pipeline have been removed from the funded program of the project as they will be constructed by the Dolores Water Conservancy District and the State of Colorado.

Public Law 98-569 authorized salinity control as a purpose of the Dolores Project and combines features of the McElmo Creek Unit, Colorado River Water Quality Improvement Program, with the Dolores Project.

Reclamation, the Dolores Water Conservancy District, the Montezuma Valley Irrigation Company and the Ute Mountain Ute Indian Tribe have executed cooperative agreements for the expenditure of $21 million for the final completion of the Dolores Project beginning with FY 1995 and ending in FY 1998.

Dolores Project . . . .

Appropriation ceiling

Appropriations authorized are $1,448,854,000 (October 1996) for this and other projects authorized under Title V of Public Law 93-537. The projects authorized under this title include, in addition to Dolores, Animas-La Plata, Dallas Creek, San Miguel and West Divide. The comparable estimated total Federal obligation for these projects is $1,772,635,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation for the completion of all projects. As there are presently no plans to commit substantial federal funds for the San Miguel and the West Divide projects, current commitments will be held within the existing ceiling.

In response to the Office of the Inspector General audit recommendations in its review of the Hoover Visitor Facilities Program, the appropriation ceiling for the Colorado River Storage Project has been reexamined and re-estimated by participating project. Expenditures for work on the Dolores Project have exceeded the indexed appropriation ceiling based on the estimated share of ceiling established in Title V of Public Law 90-537 to the authorized participating units. The proposed funding level for the Dolores Project is $6,115,000 for fiscal year 1997, and an estimated $12,327,128 would be required thereafter to complete remaining authorized project work. Current commitments and completed work to date are in excess of the partitioned indexed ceiling for the Dolores Project of $126,173,000 (October 1996).

The estimates used for the ceiling computation by the separate Colorado River Storage Project participating units are approximate. Further analysis is required to refine these estimates. The situation will be analyzed periodically as new data becomes available.

Work proposed for FY 1997

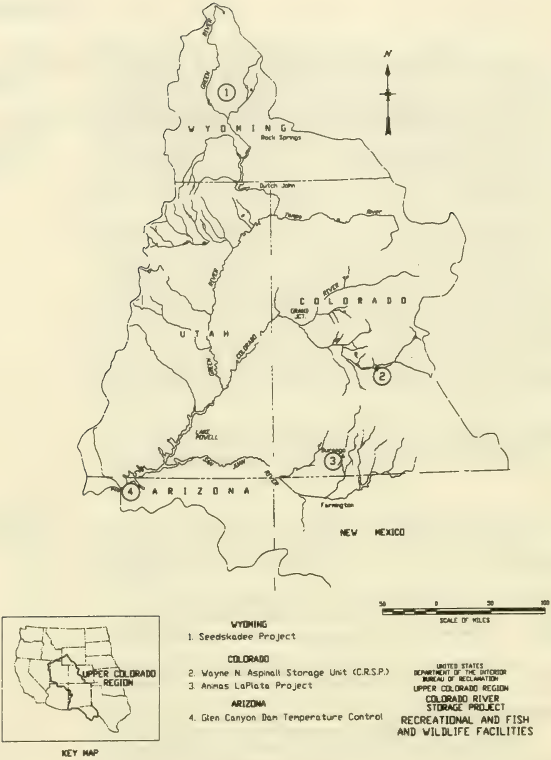
McPhee Dam and Powerplant - Contracts will be awarded to Great Cut Dike Paving / Crossroad and Outlet Works Guard Gate Repair. Minor completion activities will continue on the McPhee Dam and Powerplant features. **$ 762,000**

Dove Creek Distribution System - Land will be acquired for roads. Minor completion activities will continue on the Dove Creek Distribution System features including hydrotank installation and erosion protection. **869,000**

South Canal Distribution System - Minor completion activities will continue on the South Canal Distribution System features. **40,000**

Cortez-Towaoc Distribution System - Land will be acquired for wetlands. The contract for Wetland Mitigation will be awarded. Contractual agreements will continue for Rocky Ford Road and Towaoc Canal Deficiencies. Operation and maintenance activities during construction will continue. **2,546,000**

Drains - Land will be acquired for Dove Creek Area Drains. Contract will be awarded for Dove Creek Area Drains I and Towaoc Area Drains	1,013,000
Other Project Costs - Cultural resource activities will continue. Water rights will continue to be acquired.	$ 885,000
Total request	**$6,115,000**


GREEN RIVER
①
N
WYOMING
Rock Springs
Dutch John
Yampa River
RIVER
COLORADO
GRAND JCT.
UTAH
GREEN
COLORADO
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LAKE POWELL
SAN JUAN RIVER
Durango
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ARIZONA
Farmington
NEW MEXICO
50 0 50 100
SCALE OF MILES
UPPER COLORADO REGION
KEY MAP
WYOMING
1. Seedskadee Project
COLORADO
2. Wayne N. Aspinall Storage Unit (C.R.S.P.)
3. Animas LaPlata Project
ARIZONA
4. Glen Canyon Dam Temperature Control
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
COLORADO RIVER
STORAGE PROJECT
RECREATIONAL AND FISH
AND WILDLIFE FACILITIES

Colorado River Storage Project
Recreational and Fish and Wildlife Facilities
Arizona, Colorado, New Mexico, Utah, Wyoming

Location This project is located in the States of Arizona, Colorado, New Mexico, Utah, and Wyoming.

Description Section 8 of the Colorado River Storage Project Act, enacted April 11, 1956, authorized and directed the Secretary to investigate, plan, construct, operate, and maintain (1) public recreational facilities on lands withdrawn or acquired for the development of the Colorado River Storage Project, or participating projects, to conserve the scenery; the natural, historic, and archeological objects; and the wildlife on said lands and to provide for the public use and enjoyment of the same and of the water areas created by these projects by such means as are consistent with the primary purposes of said projects and (2) facilities to mitigate losses of, and improve conditions for, the propagation of fish and wildlife.

Reclamation has authority for continuing work on most recreational and fish and wildlife facilities of the Colorado River Storage Project. Development and construction of project recreational areas having national significance are the responsibility of the National Park Service except Flaming Gorge Reservoir which is the responsibility of the Forest Service. Fish hatcheries and wildlife refuges are a responsibility of the Fish and Wildlife Service. Funds for the development of these areas are provided by Reclamation until they are designated by the Congress as National Recreation Areas or National Wildlife Refuges.

The total appropriation request of $2,440,000 provides for continuation of work on four projects. The investment through September 30, 1995, at public use areas created by the Colorado River Storage Project Act totaled $250 million. In 1994, about 3.6 million fish were produced by the two fish hatcheries constructed as a part of the project. There were 8.8 million visitations at the 25 completed Colorado River Storage Project reservoirs during the 1994 recreation season. However, due to the FY 1996 Federal government shutdown, the fish production figures and the visitations figure are not available for 1995.

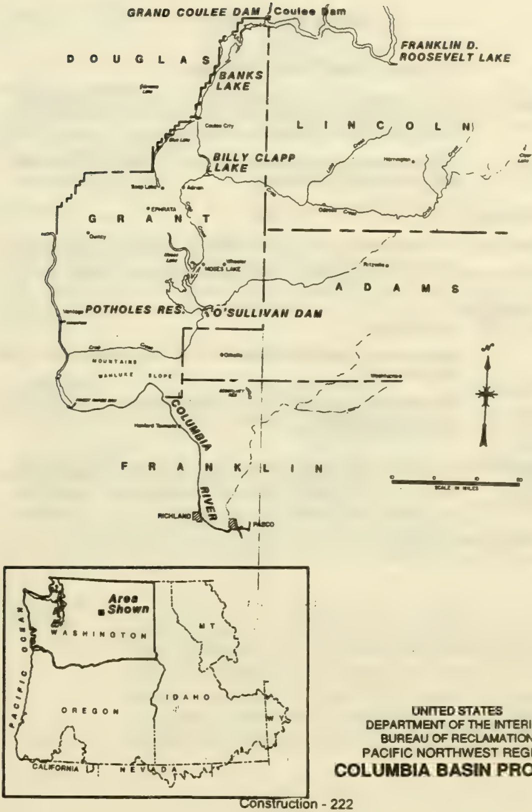
Summarized Financial Data

	Enacted FY 1996	Request FY 1997
Fish and wildlife facilities	1,760,000	2,440,000
Total program	$1,760,000	$2,440,000

Recreational and Fish and Wildlife Facilities . . . .

Work proposed for FY 1997 **Fish and Wildlife Facilities**

Animas-La Plata Project, Colorado - Wetlands for mitigation will begin to be acquired. Preconstruction activities will continue.	**$ 500,000**
Seedskadee Project, Wyoming - Development of the National Wildlife Refuge will continue.	**700,000**
Glen Canyon Unit, Arizona - Studies will continue for temperature control structures at Glen Canyon Dam as required by the Glen Canyon Environmental Impact Statement.	**400,000**
Wayne N. Aspinall Unit, Colorado - Land acquisition will continue for Fishery Mitigation.	**840,000**
Total request	**$2,440,000**



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
COLUMBIA BASIN PROJECT

Columbia Basin Project
Washington

Location	This project is located in central Washington.
Description	This is a multipurpose project that provides a power supply of 6,494,000 kilowatts and a full water supply for the irrigation of 557,530 acres. The project also provides flood control, fish and wildlife, and navigation benefits.
Authorization	Public Law 409, August 30, 1936; and Public Law 89-448, June 14, 1966, authorized the Third Powerplant.
Land certification	August 11, 1952; April 7, 1976.
Definite plan report	A summary planning report for the previously authorized project facilities was submitted in March 1953 and adopted in lieu of a Definite Plan Report. The Third Powerplant Report was approved March 18, 1968.
Benefit cost ratio as of October 1, 1996	Direct Benefits: 6.0 The benefit-cost ratio for the project without the Third Powerplant is 2.0 for direct benefits. The ratios were computed using the authorized interest rate of 3 percent for Irrigation Facilities and 3-1/8 percent for the Third Powerplant. No change from the previous submittal.
Completion data	A completion date cannot be determined at this time. Irrigation drainage facilities are constructed as the need arises and are scheduled to continue for several years pending completion of a drainage study. All remaining work on the Third Powerplant was completed in FY 1994. The Irrigation Facilities were 99 percent complete as of September 30, 1995.

Columbia Basin Project . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$1,768,992,585	Allotments to 9/30/95	$1,699,940,062
Other Federal	- 0 -	Allotments for FY 1996	2,463,000
Net property and other transfers			
Federal participation	10,913,886	Allotments to date	1,702,403,062
Non-Federal participation	15,362,000	Allotments for FY 1997	2,590,000
Adjustment 1/	47,221,000	Balance after FY 1997	$63,999,523
Total to be allocated	$1,842,489,471		

1/ Includes operation and maintenance of financed additions and improvements to power and multipurpose facilities; credits for sale of property under the Coulee Dam Community Act of 1957, and minor adjustments, all of which total $5,834,000. Interest during construction amounts to $41,387,000.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation	$ 752,768,396	$ 749,132,060
Power	1,032,823,846	1,030,915,486
Fish and Wildlife	8,081,589	8,081,589
Flood Control	50,772,000	49,466,000
Navigation	1,000,000	1,000,000
Other 1/	4,228,000	3,894,336
Total	$1,849,673,831	$1,842,489,471

1/ Includes nonreimbursable expenditures of $177,000 for spillway flood lighting at Grand Coulee Dam; $3,351,336 for cultural resources activities; and $366,000 for landslide/groundwater investigations of Franklin County roads.

Cost allocation methodology

The methodology of the cost allocation has not been modified from last year. The allocation reflects the deletion of all costs associated with future irrigation development (2nd half of project) and associated purposes. The power, irrigation, and flood control allocation decreased due to a reduction in the estimated cost of fish hatchery mitigation. All three functions are assigned a share of the fish mitigation costs. Irrigation also decreased due to a reduction in estimated cost for drainage facilities and for deferred and supplemental irrigation construction. The "other" allocation decreased due to a reduction in the estimated cost for cultural resource activities.

Project Repayment

Repaid By	Amount
Irrigators 1/	$ 73,871,000
Power 2/	1,671,063,546
Settlement land sales	13,309,000
Non-Federal contributions 3/	15,259,000
Leavitt Act 4/	6,545,000
Nonreimbursable 5/	62,441,925
Total	$1,842,489,471

1/ The scheduled amount to be repaid on completed facilities is covered by existing contracts with project beneficiaries.

2/ Power which is in excess to project needs is delivered to and marketed by the Bonneville Power Administration. Power for project use will be repaid under existing and future water user repayment contracts.

3/ Includes $15,000,000 contribution by the State of Washington to assist in construction of Bacon Siphon and Tunnel No. 2; $313,440 contributed by the State of Washington to assist in the construction of Grand Coulee Dam; and $48,560 in miscellaneous contributions, less $103,000 non-Federal contribution allocation to flood control included in the total under footnote 5.

4/ Cost allocated to Indian irrigation--the Leavitt Act permits repayment to be deferred as long as the land is Indian owned.

5/ Includes $49,466,000 for flood control; $1,000,000 for navigation; $177,000 for spillway flood lighting; $8,081,589 for fish and wildlife; $3,351,336 for cultural resources activities; and $366,000 for landslide/ground-water investigations of Franklin County roads.

Status of repayment contract Amendatory repayment contracts were executed on December 18, 1968, by the three Columbia Basin Irrigation Districts. Master water service contracts with the East and Quincy Columbia Basin Irrigation Districts for Bacon Siphon and Tunnel No. 2 water were executed on August 27, 1976.

Columbia Basin Project . . . .

Irrigation investment per acre

Summary of Irrigation Investment

Total irrigation investment/acre	$1,344
Repayment of irrigation investment per acre by	
Irrigators	$ 133
Power revenues	1,148
Indian irrigation (deferred)	12
Non-Federal contribution	27
Settlement land sales	24
Payment capacity per acre and/or acre-foot	
Annual charges (per acre)	$32.73
Construction	2.65
Operation and maintenance	30.08

Status of NEPA compliance

A project wide final environmental statement was filed with Council on Environmental Quality, February 27, 1976. Final statement for the Esquatzel Coulee, August 18, 1977. Finding of no significant impact for Block 26 Laterals, June 1, 1981. Draft environmental impact statement for completion of the project was filed with the Environmental Protection Agency September 20, 1989, a supplement to the draft was filed September 21, 1993. Due to the uncertainty regarding the Columbia and Snake Rivers flow requirements and listing of threatened and endangered species, plans for the final EIS have been discontinued.

Other information

Irrigation facilities have been completed for approximately one-half of the total authorized project acres. The Right and Left Powerplants, pump generating plant, and Third Powerplant at Grand Coulee have been completed and are in service.

Decision was made to not develop the second phase of the Columbia Basin Project which resulted in a reduction in irrigated acreage.

Appropriation ceiling

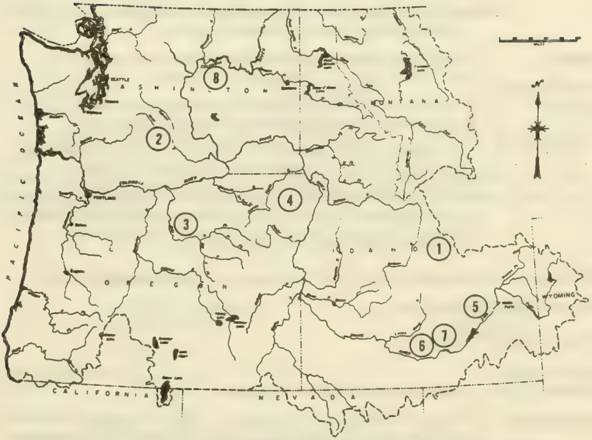
Appropriations ceiling language for the Columbia Basin Project applies to the Third Powerplant only.

Work proposed for FY 1997

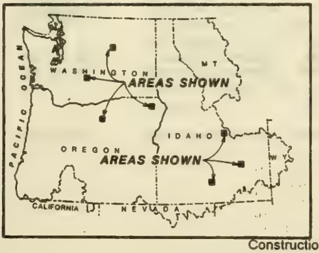
Drainage - Provides for technical assistance to the irrigation districts in assuming the responsibilities for the drainage program. **$ 780,000**

Deferred and Supplemental - A contract for corrective work on the Esquatzel Coulee Wasteway will be awarded. The work will allow for a major county road crossing to accommodate anticipated flood flows.

Construction work will be completed on installation of fish screens at Burbank Pumping Plants 2 and 3.	1,630,000
Other Project Costs - Provides for payments in lieu of taxes.	180,000
Total request	**$2,590,000**



WATER CONSERVATION/FLOW AUGMENTATION PROJECTS:
1 . LEMHI RIVER BASIN PROJECT, IDAHO
2 . YAKIMA RIVER BASIN PROJECT, WASHINGTON
3. JOHN DAY RIVER BASIN PROJECT, OREGON
4. WALLOWA BASIN PROJECT, OREGON
WATER ACQUISITION:
5. WATER LEASES/STORAGE BUYBACK
ENVIRONMENTAL ACTIVITIES:
6. SNAKE RIVER RESOURCES REVIEW
7. THREATENED/ENDANGERED SNAIL STUDIES
FISH PASSAGE AND PROTECTIVE FACILITIES:
8. COLUMBIA RIVER BASIN FACILITIES



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION

COLUMBIA AND SNAKE RIVER SALMON RECOVERY PROJECT

Columbia and Snake River Salmon Recovery Project

Idaho, Oregon, Montana, Washington, Wyoming

Location	This project is located in the Columbia River drainage in the states of Idaho, Oregon, Montana, Washington, and Wyoming.
Description	The decline in populations of salmon in the Columbia River Basin is one of the most pressing environmental and economic issues facing the Northwest. In December 1991, the National Marine Fisheries Services (NMFS) listed the Snake River sockeye salmon as endangered, and in May 1992, the Snake River spring/summer and fall chinook were listed as threatened. Streamflow conditions in the Lower Snake and Columbia Rivers are critical to salmon migration. The Bureau of Reclamation is one of several agencies that operate dams and water projects on the Columbia and Snake Rivers, and is taking several actions to comply with the Endangered Species Act and to aid in salmon survival.
Authorization	Endangered Species Act, Public Law 93-205, dated December 28, 1973.
Land certification	None required.
Definite plan report	None required.
Benefit cost ratio as of October 1, 1996	Not applicable since benefits are intangible.
Completion data	The project is scheduled for completion in FY 2000. The project is 7 percent complete as of September 30, 1995. Completion has been delayed for one year due to extension of time required to complete the Snake River resources review, snail studies, fish screens, and biological opinion activities.

Summarized Financial Data

Total Federal obligations			
Reclamation	$108,504,000	Allotments to 9/30/95	$ 8,887,024
Other Federal	- 0 -	Allotment for FY 1996	13,500,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	22,387,024
Non-Federal participation 1/	2,500,000	Allotment for FY 1997	15,000,000
Adjustments	- 0 -		
Total to be allocated	$111,004,000	Balance after FY 1997	$71,116,976

1/ Funding provided by the State of Washington.

Columbia / Snake River Salmon Recovery . . . .

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Fish and wildlife	$64,451,000	$111,004,000 2/
Total	$64,451,000	$111,004,000

2/ Change in estimated costs reflects a reformulation of the project to include increased water acquisition as the result of an increased role for Reclamation under the Biological Opinion issued on March 2, 1995.

Project Repayment

Repaid By	Amount
Non-Federal contributions	$ 2,500,000
Non-reimbursable	108,504,000
Total	$111,004,000

Status of repayment contracts None required.

Irrigation investment per acre Not applicable.

Status NEPA compliance Applicable NEPA documentation will be completed before individual actions are undertaken.

Appropriation ceiling Not applicable.

Work proposed for FY 1997 **Water Conservation / Flow Augmentation** - A contract will be awarded for construction of the Yakima Reregulation reservoir. Monitoring activities will continue on Lemhi, John Day and Wallowa demonstration projects. **$6,157,000**

Water Acquisition - Contracts for water rentals and purchases will continue. **7,386,000**

Environmental Activities - Snake River resources review activities will continue.	2,948,000
Fish Passage and Protective Facilities - Contracts will be awarded for construction of fish screens at Shellrock and East Unit Pumping Plants.	1,009,000
Non-Federal Participation	- 2,500,000
Total request	$15,000,000

Efficiency Incentives Program

Location Activities are located within all Federal water projects in the 17 Western States.

Description Reclamation, as a principal operator of Federal water projects in the 17 Western States, has been directed under the Reclamation Reform Act of 1982 (RRA) to encourage efficient use of water within its projects. In the continuing spirit of government reinvention, Reclamation proposes to refocus the Federal role in encouraging innovation in water resources management, and in responding to local customers' needs in meeting water conservation objectives of the RRA.

Reclamation recently undertook a comprehensive review of the implementation of the RRA. Public involvement and comment demonstrated strong public support for incentive-based assistance as an alternative to increased regulation as a means of encouraging water conservation.

The goal of this program is to provide a partnership capability for Reclamation and its customers, in cooperation with States and other entities, in seeking solutions to water use efficiency problems tailored to local conditions. The program will complement and support existing State conservation programs.

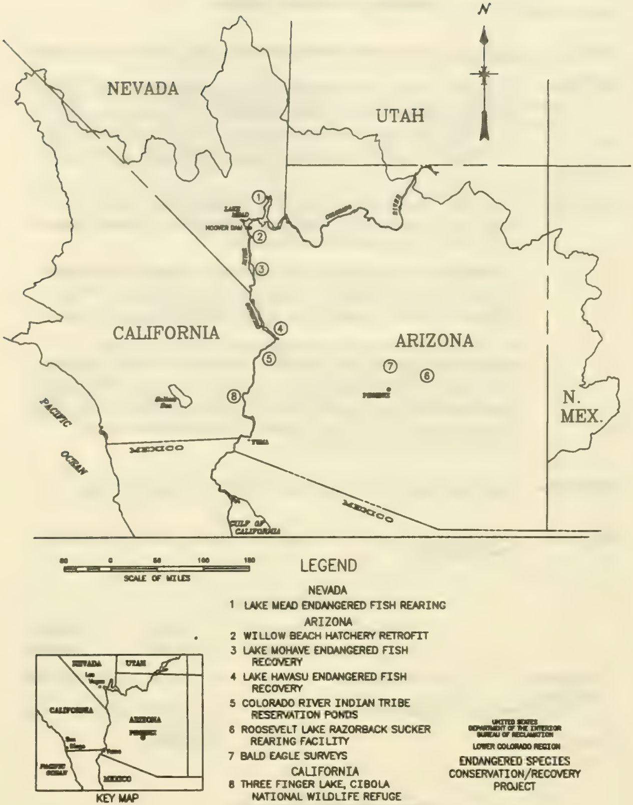
The program will support technical assistance to districts in planning, evaluating, demonstating, and implementing efficiency measures as part of Reclamation's Water Conservation Field Services Program. The program will provide the opportunity to be responsive to the needs of agricultural and urban water districts and to encourage innovation in efficiency improvements through the development of cost-sharing incentives on the demonstration and implementation of effective measures.

Authorization Public Law 97-293, Title II, Reclamation Reform Act, October 12, 1982.

Cost Sharing Cost-sharing will be sought. Matching funds may be available from State and other local entities.

Summarized Financial Data

	Estimated Cost	FY 1996 Allotment	FY 1997 Estimate	Balance to Complete
Reclamation	(to be determined)	$ - 0 -	$ 4,350,000	(to be determined)
Non-Federal (cash and services)	(to be determined)	- 0 -	4,350,000	(to be determined)
Total		- 0 -	$8,700,000	



LEGEND

NEVADA

1 LAKE MEAD ENDANGERED FISH REARING

ARIZONA

2 WILLOW BEACH HATCHERY RETROFIT
3 LAKE MOHAVE ENDANGERED FISH RECOVERY
4 LAKE HAVASU ENDANGERED FISH RECOVERY
5 COLORADO RIVER INDIAN TRIBE RESERVATION PONDS
6 ROOSEVELT LAKE RAZORBACK SUCKER REARING FACILITY
7 BALD EAGLE SURVEYS

CALIFORNIA

8 THREE FINGER LAKE, CIBOLA NATIONAL WILDLIFE REFUGE
9 LCR HABITAT CONSERVATION PROGRAM (COVERS ENTIRE LOWER COLORADO RIVER BASIN)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION

ENDANGERED SPECIES
CONSERVATION/RECOVERY
PROJECT

Construction - 234

Endangered Species Conservation / Recovery Projects
Lower Colorado Region
Arizona, California, Nevada

Location These projects are located at various sites within the Colorado River Basin in Arizona, southern California, and southern Nevada.

Description This program provides for the development and implementation of projects for the preservation, conservation, and recovery of endangered, threatened, proposed, and candidate species that are resident or migratory to habitats within the Lower Colorado River Basin. Principal endangered and proposed species include the razorback sucker, bonytail chub, Colorado squawfish, Yuma clapper rail, bald eagle, and southwestern willow flycatcher. Specific projects include the rearing of endangered fish in isolated coves on Lake Mohave, Lake Havasu, and Lake Mead; rehabilitating backwaters along the Lower Colorado River for endangered fish rearing and wetland improvements for several species; construction of rearing ponds (e.g. on Colorado River Indian and Hualapai Reservations) for endangered fish; retrofitting of cold water hatcheries to warm water capabilities (e.g., Willow Beach National Fish Hatchery and Lake Mead State Hatchery, Nevada); and rehabilitation of Bubbling Ponds State Hatchery, Arizona. The recovery of the Yuma clapper rail will be accelerated through the restoration of wetland habitats along the Colorado River, with special emphasis on partnerships with the four National Wildlife Refuges. Status of the willow flycatcher and other neotropical migrants will be improved through the restoration of native willow and cottonwood riparian habitats along the Colorado River and tributaries. Restoration of native wetland-riparian habitats will assist in preventing the listing of several candidate species. Improvements in the status of raptors can be accomplished through nestwatch programs for the bald eagle.

Authorization Public Law 93-205, Endangered Species Act of 1973, as amended.

Land certification None required.

Definite plan report Projects for individual species and critical habitat have been or will be developed as necessary.

Benefit cost ratio as of October 1, 1996 Not applicable since benefits are intangible.

Completion Data As of September 30, 1995, the project was 6 percent complete. There are numerous endangered and threatened species in the Colorado River basin. This program as currently identified is expected to complete in FY 2001; however, given the number of candidate species and the potential for additional consultations under the Endangered Species Act the ultimate completion date for the project cannot be determined. An additional year was added to the completion date due to interim multi-state, multi-species agreement.

Endangered Species, LC . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$19,230,000	Allotments to 9/30/95	$1,778,999
Other Federal	- 0 -	Allotments for FY 1996	2,170,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	3,948,999
Non-Federal participation	17,451,000	Allotments for FY 1997	2,981,000
Adjustment	- 0 -		
Total to be allocated	$36,681,000	Balance to complete	$12,300,001

Project Cost Allocation

Allocation	FY 1996 Estimate	FY 1997 Estimate
Fish and Wildlife	$20,418,000	$36,681,000
Total	$20,418,000	$36,681,000

The change in estimated costs reflects the expenses associated with the Multi-Species Conservation and Recovery Program signed in August 1995. This action resulted in the three lower basin states (Arizona, Nevada, and California) entering into a partnership with the Department of the Interior to develop a long-term conservation effort that will acommodate current and future water and power activities, and protect and enhance the endangered fish and their critical habitats in the lower Colorado River basin.

Project Repayment

Repaid By	Amount
Nonreimbursable	$19,230,000
Non-Federal contributions	17,451,000
Total	$36,681,000

Status of repayment contract Not applicable.

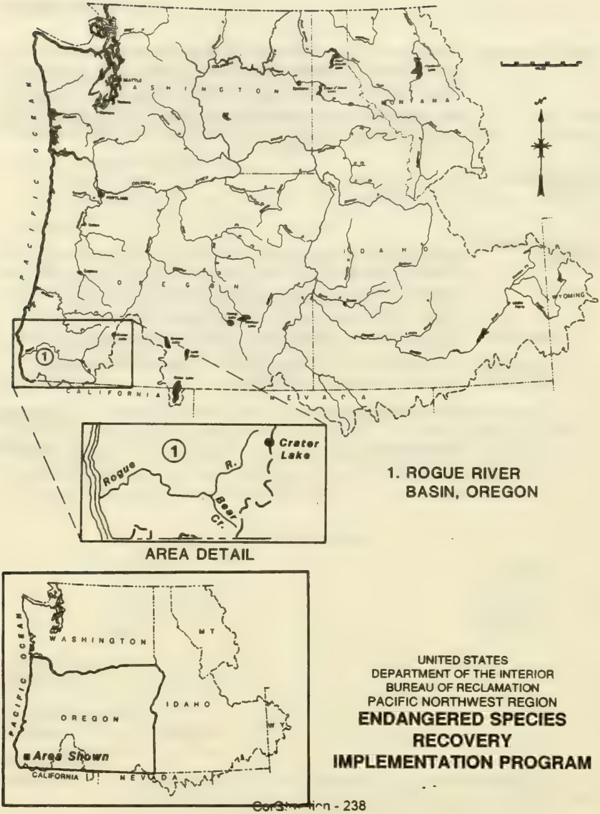
Irrigation investment per acre Not applicable.

Status of NEPA compliance Individual NEPA compliance documents will be prepared before construction is initiated. Construction activities currently scheduled would be covered by categorical exclusions or environmental assessments.

Other information	This program will further the purposes of the Endangered Species Act by developing and implementing actions that conserve, sustain, and assist in the recovery of endangered, threatened, proposed, and candidate species in the Lower Colorado River Basin. Work will include early ecosystem interventions on native fish species to avoid the need to list these species as endangered or threatened. Critical habitats will be designated at various sites along the Colorado River.
Appropriation ceiling	Not applicable.

Work proposed for FY 1997

Construction will continue on the installation of the Hualapai Rearing Facility, the Roosevelt Lake Razorback Sucker Rearing Facility, and major phases on the retrofit of Willow Beach Hatchery. Work will also continue on the construction of additional endangered fish rearing coves on Lakes Mead, Mohave, and Havasu, and additional backwaters along the Lower Colorado River and degraded riparian-wetland habitats will be renovated. Coordination of Federal and non-Federal effort will proceed in the development of the Lower Colorado River Habitat Conservation Plan. Monitoring of bald eagles will continue.	**$ 5,962,000**
Non-Federal contributions	**- 2,981,000**
Total request	**$ 2,981,000**



1. ROGUE RIVER BASIN, OREGON

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
ENDANGERED SPECIES
RECOVERY
IMPLEMENTATION PROGRAM

Endangered Species Recovery Implementation Program
Pacific Northwest Region
Idaho, Montana, Oregon, Washington

Location Activities are located in the states of Idaho, Montana, Oregon, and Washington.

Description Reclamation, as a principal operator of Federal water projects in the Pacific Northwest, is designated as a cooperative participant in recovery measures to minimize the potential effects of Reclamation actions upon listed or candidate species and reduce the potential for more stringent requirements being imposed upon Reclamation projects as a result of formal consultation pursuant to section 7(a)(2) of the Endangered Species Act. This program will identify and undertake activities to recover and conserve listed and candidate species at existing Reclamation projects throughout the Pacific Northwest Region.

Authorization Public Law 93-205, Endangered Species Act of 1973, as amended

Land certification None required.

Definite plan report Not applicable.

Benefit cost ratio as of October 1, 1996 Not applicable since benefits are intangible.

Completion date The Rogue River Basin program is scheduled for completion in FY 2001. The ultimate completion date for the project has not been determined.

Summarized Financial Data

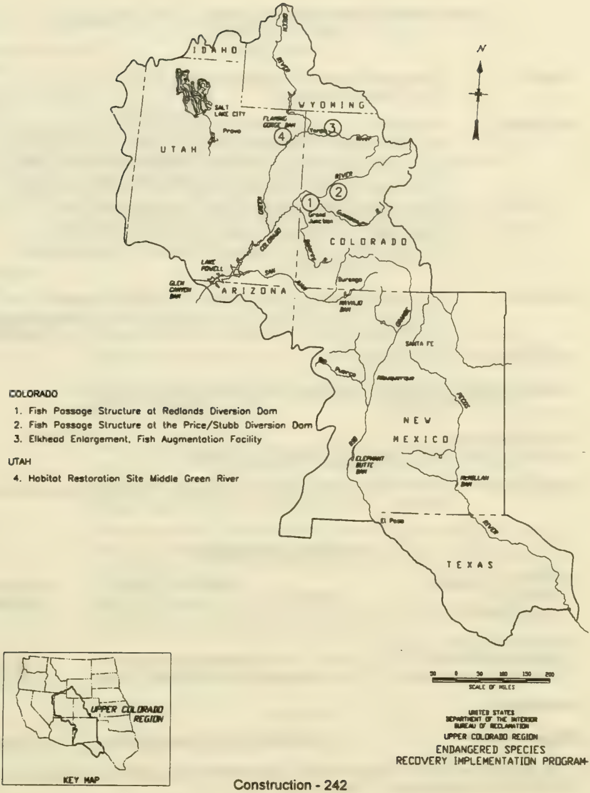
Total Federal obligations			
Reclamation 1/	$To be determined	Allotments to 9/30/95	$100,000
Other Federal	TBD	Allotments for FY 1996	170,000
Net property and other transfers			
Federal participation	TBD	Allotments to date	270,000
Non-Federal participation	TBD	Allotments for FY 1997	1,130,000
Adjustment			
Total to be allocated	TBD	Balance after FY 1997	TBD

1/ Total cost and non-Federal participation not yet determined. Current estimate of total cost is $3,495,000. Project cost allocations and plans for project repayment will be developed as planning activities are completed.

Status of NEPA compliance Individual NEPA compliance documents will be prepared before construction is initiated.

Endangered Species, PN . . . .

Other information	Although the primary focus of activities for which funds are being requested in FY 1997 are in the State of Oregon, efforts will continue to identify and cooperate in recovery and conservation activities at Reclamation facilities throughout the region as necessary.
Appropriation ceiling	Not applicable.
Work proposed for FY 1997	Contracts will be awarded for modification of fish screens and ladder structures at North Fork Little Butte, South Fork Little Butte Creek, and Antelope Creek Canal diversions in the Rogue River Basin to protect anadromous and resident fisheries and improve passage conditions for the recovery of listed or candidate species. Work will complete on the Antelope Creek Canal Ladder.
	Total request **$ 1,130,000**


IDAHO
WYOMING
UTAH
COLORADO
ARIZONA
NEW MEXICO
TEXAS
N
SALT LAKE CITY
Provo
FLAMING GORGE DAM
Yampa
River
GREEN RIVER
Grand Junction
Gunnison
COLORADO
LAKE POWELL
GLEN CANYON DAM
SAN JUAN
Durango
NAVAJO DAM
SANTA FE
Rio Puerco
Albuquerque
PECOS
GRANDE
RIO
ELEPHANT BUTTE DAM
McMILLAN DAM
El Paso
RIVER
1
2
3
4
COLORADO
1. Fish Passage Structure at Redlands Diversion Dam
2. Fish Passage Structure at the Price/Stubb Diversion Dam
3. Elkhead Enlargement, Fish Augmentation Facility
UTAH
4. Habitat Restoration Site Middle Green River
UPPER COLORADO REGION
KEY MAP
50 0 50 100 150 200
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
ENDANGERED SPECIES
RECOVERY IMPLEMENTATION PROGRAM

Endangered Species Recovery Implementation Program

Upper Colorado Region
Various States

Location	The project is located in the states of Arizona, Colorado, New Mexico, Texas, Utah, and Wyoming.
Description	This program provides for activities to develop and maintain endangered fish habitat by restoring flooded bottom land habitat and restoring fish access to river reaches by constructing fish passage structures. Also, provides for activities to obtain and develop water supply alternatives to maintain flows for endangered fish habitat, and to construct endangered fish augmentation and rearing facilities. It also provides for the development and implementation of projects for the preservation, conservation, and recovery of endangered, threatened, proposed, and candidate species that are resident or migratory to habitats within the Upper Colorado River Basin.
Authorization	Endangered Species Act, Public Law 93-205, dated December 28, 1973. Authority for the development and improvement of wildlife resources is also provided by Section 3 (a) of the Fish and Wildlife Coordination Act of 1946.
Land certification	None required.
Definite plan report	Programs for individual species and critical habitat will be developed as necessary.
Benefit-cost ratio as of October 1, 1996	Not applicable since benefits are intangible.
Completion data	Completion of project depends on willingness of all partners to share in the financing. The project could be completed as early as 2000.

Summarized Financial Data

Total Federal Obligations		Allotments to 9/30/95	$5,197,250
Reclamation	$45,514,000	Allotments for FY 1996	6,223,000
Other Federal	- 0 -		
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	11,420,250
Non-Federal participation 1/	30,000,000	Allotments for FY 1997	7,900,000
Adjustments			
Total to be allocated	$75,514,000	Balance after FY 1997	$26,193,750

1/ Non-Federal participation is anticipated to be approximately fifty percent of remaining capital improvement costs beginning in FY 1997.

Status of repayment contract Not applicable.

Irrigation investment per acre Not applicable.

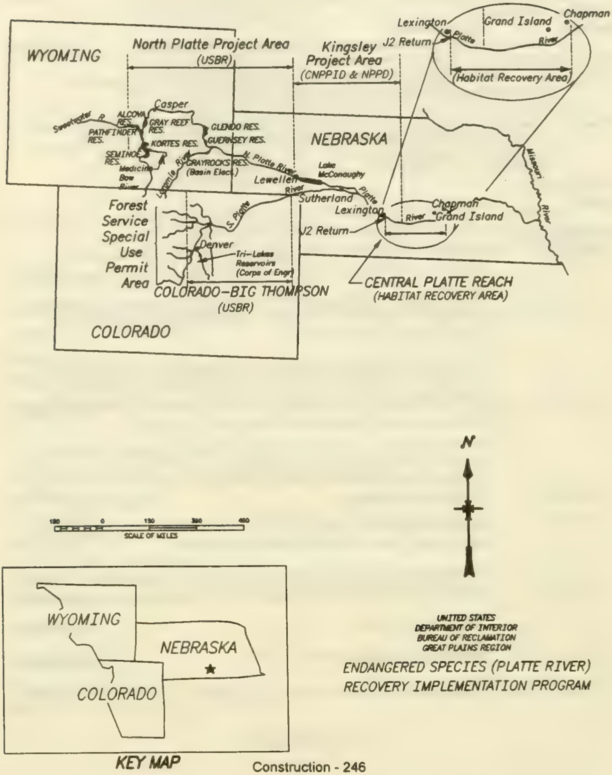
Status of NEPA compliance National Environmental Policy Act compliance will be completed as required to maintain construction schedules.

Other information Reclamation has been involved in Recovery Implementation Plan activities since 1988. Initial funding has been provided by Colorado River Storage Project revenues.

Appropriation ceiling Not applicable.

Work proposed for FY 1997

Activities To Avoid Jeopardy - Management of endangered species initiatives will continue within the Upper Colorado River Basin.	**$ 432,000**
Restoration of Fish Passages - Contracts will be awarded to contract fish passage facilities at the Price Stubb Dam, Redlands Fish Entrain and Yampa River Diversion Dams.	**1,448,000**
Yampa River Water Development - Contracts for land for water storage will begin to be acquired and preconstruction activities will continue on the storage component of the Yampa River Operation and Management Plan.	**3,710,000**
Water Acquisition - A contract will be awarded to construct canal control facilities to reduce diversions to enhance flow conditions for Colorado River critical habitat. Hydrologic/Operation studies of private and federal storage facilities will continue.	**3,200,000**
Habitat Restoration - A contract will be awarded for the development of habitat sites. Land acquisition activities will continue.	**2,640,000**
Endangered Fish Augmentation - Contract(s) will be awarded to construct and/or lease Endangered Fish Augmentation Facilities..	4,370,000
Total program cost	**$15,800,000**
Non-Federal Contribution	**-$7,900,000**
Total request	**$7,900,000**


WYOMING
North Platte Project Area
(USBR)
Kingsley
Project Area
(CNPPID & NPPD)
Lexington
Grand Island
Chapman
J2 Return
Platte
River
Habitat Recovery Area
Casper
Sweetwater R.
ALCOVA RES.
PATHFINDER RES.
GRAY REEF RES.
GLENDO RES.
GUERNSEY RES.
KORTES RES.
SEMINOE RES.
Medicine Bow River
Laramie River
GRAYROCKS RES.
(Basin Elect.)
N. Platte River
NEBRASKA
Lake McConaughy
Lewellen
River
Sutherland
Platte
Lexington
River
Chapman
Grand Island
J2 Return
Missouri
River
Forest
Service
Special
Use
Permit
Area
S. Platte
Denver
Tri-Lakes
Reservoirs
(Corps of Engr)
COLORADO-BIG THOMPSON
(USBR)
COLORADO
CENTRAL PLATTE REACH
(HABITAT RECOVERY AREA)
N
150
0
150
300
450
SCALE OF MILES
WYOMING
NEBRASKA
COLORADO
★
KEY MAP
UNITED STATES
DEPARTMENT OF INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION
ENDANGERED SPECIES (PLATTE RIVER)
RECOVERY IMPLEMENTATION PROGRAM

Endangered Species Recovery Implementation Program
Platte River Recovery Implementation Program
Colorado, Nebraska, Wyoming

Location This activity is located in the Platte River Basin in Wyoming, Colorado, and Nebraska.

Description This program provides for Reclamation's participation in the development and implementation of the multi-state, basinwide Platte River Recovery Implementation Program. The Department of the Interior, and the States of Wyoming, Colorado, and Nebraska are developing a framework for an agreement that consists of measures to manage and restore endangered or threatened species, while providing for the continued operation of existing and new water projects in the Basin. The program implementation is expected to be accomplished over a 20 to 30-year period. Under the partnership being developed, Reclamation funds would be for the purposes of 1) water conservation; 2) research and monitoring; and 3) program administration.

Authorization Public Law 93-205, Endangered Species Act of 1973, as amended.

Land certification None required.

Definite plan report None required

Benefit cost ratio as of October 1, 1996 Not applicable since benefits are intangible.

Completion data FY 2016 to FY 2026

Summarized Financial Data

Total obligations			
Reclamation	$25,000,000	Allotments to 9/30/95	$ - 0 -
		Allotments for FY 1996	- 0 -
Net property and other transfers			
Federal participation		Allotments to date	- 0 -
Non-Federal participation 1/	$To Be Determined	Allotments for FY 1997	$ 2,500,000
Adjustments			
Total to be allocated	$To Be Determined	Balance to complete	$22,500,000

1/ Funding provided by the States of Wyoming, Colorado, and Nebraska. Negotiations are underway to determine the cost sharing provisions.

Endangered Species, Platte River . . . .

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Fish and Wildlife	- 0 -	$To Be Determined
Total	- 0 -	$To Be Determined

Project Repayment

Repaid by	Amount
Federal Nonreimbursable	$25,000,000
Non-Federal Contribution	To Be Determined
Total	$To Be Determined

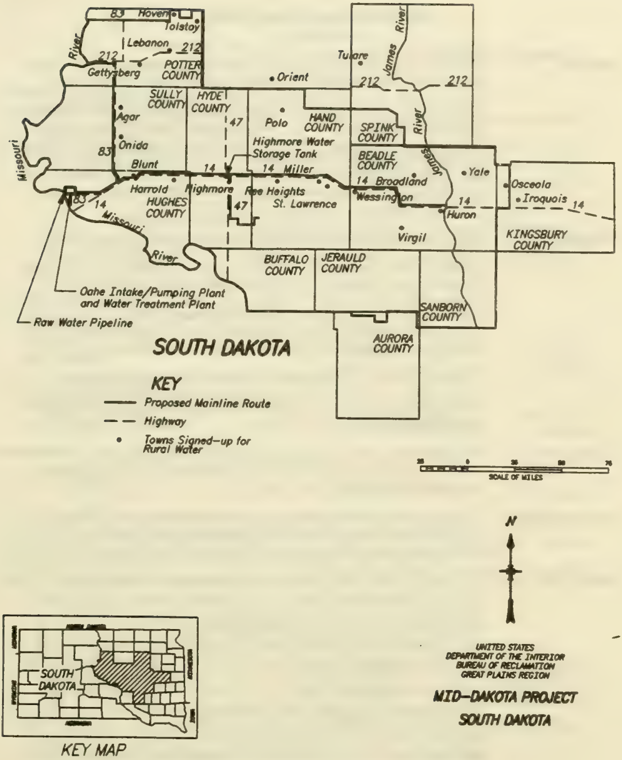
Status of repayment contracts Not Applicable.

Status of NEPA compliance NEPA compliance will commence upon execution of a framework for an agreement.

Appropriation ceiling Not applicable

Work proposed for FY 1997 Work will begin on water conservation activities and research. Coordination work will continue with the State partners on habitat restoration.

Total request **$2,500,000**


83
Hoven
Tolstoy
Lebanon
212
River
212
Gettysberg
POTTER COUNTY
Orient
Tulare
James
River
212
212
SULLY COUNTY
HYDE COUNTY
Agar
47
Polo
HAND COUNTY
SPINK COUNTY
River
Missouri
Onida
83
Highmore Water Storage Tank
Blunt
14
14
Miller
BEADLE COUNTY
James
Yale
14
Broadland
Osceola
Harrold
Highmore
Ree Heights
Wessington
Iroquois
14
83
14
HUGHES COUNTY
St. Lawrence
14
Huron
47
Missouri
KINGSBURY COUNTY
Virgil
River
BUFFALO COUNTY
JERAULD COUNTY
Oahe Intake/Pumping Plant and Water Treatment Plant
SANBORN COUNTY
Raw Water Pipeline
AURORA COUNTY
SOUTH DAKOTA
KEY
Proposed Mainline Route
Highway
Towns Signed-up for Rural Water
SCALE OF MILES
N
SOUTH DAKOTA
KEY MAP
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION
MID-DAKOTA PROJECT
SOUTH DAKOTA

Mid-Dakota Rural Water System
South Dakota

Location The Mid-Dakota Rural Water System project area includes all or portions of the 10 South Dakota counties of Beadle, Buffalo, Hand, Hughes, Hyde, Jerauld, Potter, Sanborn, Spink, and Sully. The project area covers approximately 7,000 square miles of the State of South Dakota (roughly 10 percent of the total land area of the entire State). The project area extends approximately 125 miles from its western boundary along the Missouri River to its eastern boundary of the Beadle County and Kingsbury County division line. The system extends from its northern-most boundary of Potter County for a distance of approximately 80 miles to its southern-most boundary of Sanborn County.

Description The Mid-Dakota Rural Water System will provide treated Missouri River water to rural and municipal residents in central South Dakota through a system of pumps, storage tanks, and a network of buried pipe. The project will utilize water pumped from an intake located on Oahe Reservoir, a Corps of Engineers project. The project is designed to bring a dependable supply of good-quality drinking water to more than 29,000 people and more than 600,000 head of livestock. More than 2,600 rural water users and 23 cities have paid good intention fees to be included in the system.

A wetland component is included in the project and will be funded by a Federal grant. The Federal Government will provide $2,756,000 for the initial development and enhancement and $100,000 annually for O&M of the wetland component.

Authorization The project was authorized for construction by Congress by the Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575; Title XIX).

Land certification In accordance with the feasibility reports cited in Public Law 102-575, no water will be provided from the Mid-Dakota Rural Water System for irrigation purposes. Therefore, land certification is not required.

Definite plan report Mid-Dakota Rural Water System was not planned as a Federal project; therefore a definite plan report was not prepared. However, Public Law 102-575 directs that the water system be planned and constructed substantially in accordance with the feasibility study, entitled "Mid-Dakota Rural Water System Feasibility Study and Report" dated November 1988, and revised January 1989, and March 1989, as supplemented by the "Supplemental Report for Mid-Dakota Rural Water System" dated March 1990. In accordance with Public Law 102-575, "The Secretary shall not obligate funds for the construction of the Mid-Dakota Water Supply System until: (1) the requirements for the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) have been met; and (2) a final engineering report has been prepared and submitted to the Congress for a period of not less than ninety days," and (3) the Secretary finds that non-Federal entities have developed and implemented water conservation programs throughout the service area of the water system.

Benefit cost ratios as of October 1, 1996 B/C ratio is not required under authorizing legislation Public Law 102-575.

Completion data As of June 1994, the advanced project planning activities prerequisite to the obligation of Federal funds for construction of the water system have been completed and work is proceeding with completion of preconstruction activities and preparation of final plans and specifications. The Final Engineering Report was submitted to Congress on April 25, 1994. The development and implementation of the Water Conservation Plan was approved on May 9, 1994. NEPA compliance (EA/FONSI) was completed March 10, 1994. The project is 8 percent complete as of September 30, 1995.

Summarized Financial Data

Total Federal obligations			
Reclamation	$119,417,000	Allotments to 9/30/95	$ 5,099,419
Other Federal	- 0 -	Allotments for FY 1996	10,902,000
Net property and other transfers			
Federal participation		Allotments to date	$ 16,001,419
Non-Federal participation	$ 9,428,000	Allotments for FY 1997	2,500,000
Adjustments			
Total to be allocated	$128,845,000	Balance to complete	$100,915,581

The cost sharing requirements will be in accordance with Section 1903 of Public Law 102-575, which states that grants made available to Mid-Dakota Rural Water System, Inc. shall not exceed 85 percent of the amount authorized to be appropriated by Section 1991 of the title ($117,061,000 at October 1996 price levels). An additional $2,756,000 is authorized for wetlands (Section 1911 (b) as a nonreimbursable cost.)

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
M&I Water	$120,000,000	$126,089,000
Fish and Wildlife	2,756,000	2,756,000
Other		
Total 1/	$122,756,000	$128,845,000

1/ Increase reflects indexing the ceiling.

Cost allocation methodology Methodology has not been modified.

Project Repayment

Repaid by	Amount
Federal Nonreimbursable 1/	$102,257,000
Non-Federal Contribution 2/	9,428,000
Non-Federal Repayment 3/	17,160,000
Total	$128,845,000

1/ The nonreimbursable amount is $99,501,000 (85 percent of the appropriation ceiling of $117,061,000) plus $2,756,000 for Wetlands Development.

2/ The State of South Dakota is contributing (grant funding) $9.4 million.

3/ This amount must be repaid by project sponsor with interest within 30 years of the date of each loan, interest is not due until construction is completed.

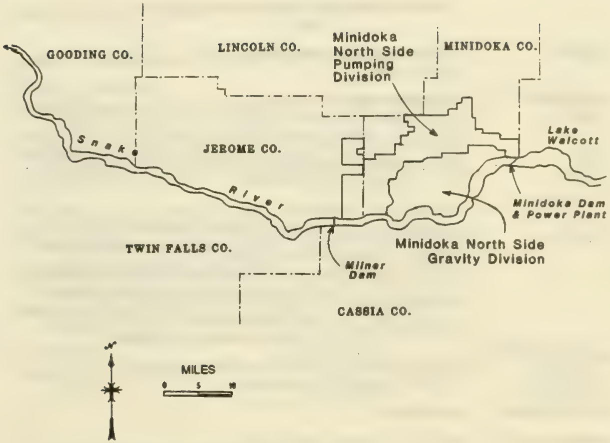
Status of repayment contracts Repayment contract was signed May 2, 1995, with the Mid-Dakota Rural Water System, Inc.

Status of NEPA compliance A NEPA decision document (i.e. Finding of No Significant Impacts) was completed March 10, 1994. A Fish and Wildlife Coordination Act Report was completed in conjunction with the NEPA compliance process.

Appropriation ceiling In accordance with Section 1911 of Public Law 102-575, "There is authorized to be appropriated to the Secretary $100,000,000 for the planning and construction of the water system under Section 1903, plus such sums as are necessary to defray increases in development costs reflected in appropriate engineering cost indices after October 1, 1989, such sums to remain available until expended." The October 1989 project cost was $108,400,000 of which $8.4 million was to be contributed by the State of South Dakota (plus appropriate indexing) leaving $100 million as the Federal obligation. At October 1996 price levels, the indexed portion of the Federal ceiling is $117,061,000. Adding the nonindexed wetland component of $2,756,000 results in authorized appropriation ceiling of $119,817,000 (October 1996). This authorization is adequate to cover the project as currently proposed.

Work proposed for FY 1997

Work on the Oahe Water Treatment Plant will continue.	**$4,100,000**
Wetlands development will continue.	**300,000**
Non-Federal services	**-1,900,000**
Total request	**$2,500,000**



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
MINIDOKA NORTHSIDE
DRAINWATER PROJECT

Minidoka North Side Drainwater Project
Idaho

Location	This project is located north of the Snake River in Minidoka and Jerome Counties, Idaho.
Description	Reclamation designed and constructed the North Side Pumping Division in 1955 utilizing drainwells for disposal of irrigation returns and storm runoff. Major project facilities, including drainwells have been retained in Federal ownership. Project drainwater, which is discharged directly into a sole source aquifer, fails to comply with Idaho Underground Injection Control Standards for injected water. This new project will protect the quality of the Snake Plain aquifer by constructing drainwater reuse facilities and wetlands for treatment and disposal of irrigation and storm runoff. Wetlands development will be contingent on findings of an ongoing demonstration/research project addressing contaminants, sedimentation, and wetland treatment issues. The project goal is to implement alternatives to the current practice of disposing agricultural drainwater and storm runoff through injection wells or implement effective means of treatment prior to injection; thereby avoiding the potential degradation of a sole source aquifer.
Authorization	Safe Drinking Water Act (Public Law 93-523, as amended), Clean Water Act (Public Law 92-500, as amended).
Land certification	Not applicable.
Definite plan report	Not required. A Framework Plan for Drainwater Management describes project-wide alternatives. Site specific plans and NEPA compliance will be accomplished during construction.
Benefit cost ratio as of October 1995	Not applicable. Action provides for environmental compliance on an existing project.
Completion data	The project is scheduled for completion in FY 2004.

Minidoka Northside Drainwater Project . . . .

Summarized Financial Data

Total Federal obligations			
Reclamation	$1,830,000	Allotments to 9/30/95	$ - 0 -
Other Federal	- 0 -	Allotment for FY 1996	60,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	60,000
Non-Federal participation 1/	1,200,000	Allotment for FY 1997	180,000
Adjustments	- 0 -		
Total to be allocated	$3,030,000	Balance after FY 1997	$1,590,000

1/ Funding provided by A&B Irrigation District.

Project Cost

Allocation	FY 1996 estimate	FY 1997 estimate
Other	$3,030,000	$3,030,000
Total	$3,030,000	$3,030,000

Project Repayment

Repaid By	Amount
Non-Federal contributions 1/	1,200,000
Non-reimbursable 2/	1,830,000
Total	$3,030,000

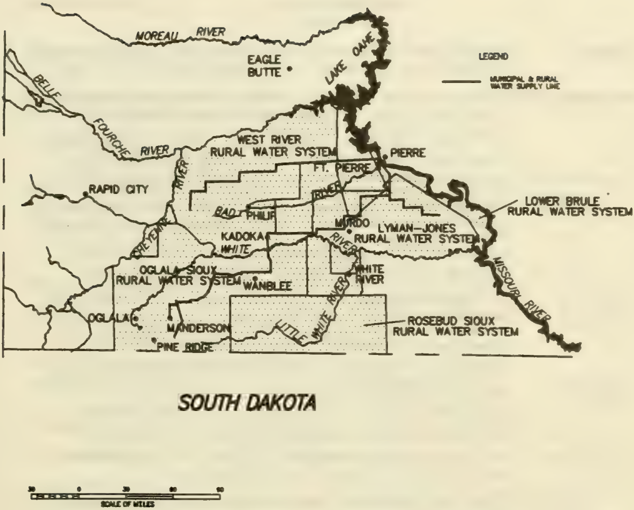
1/ Funding provided by A&B Irrigation District which is 40 percent as established in Section 319 of Clean Water Act and Reclamation Guidelines (Planning Instruction No. 90-03). Non-Federal costs will be contributed as in-kind service.

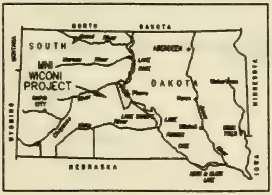
2/ Federal portion of costs authorized as nonreimbursable.

Status of repayment contracts None required.

Status of NEPA compliance Programmatic NEPA compliance was accomplished in conjunction with development of the Framework Drainwater Management Plan. Applicable site specific NEPA documentation will be completed before individual actions are undertaken.

Appropriation ceiling	Not applicable.	
Work proposed for FY 1997	Award of contract for pumpback/reuse development and continuation of land and right acquisitions.	**$ 300,000**
	Total Non-Federal non-cash contribution	**- 120,000**
	Total request	**$ 180,000**





KEY MAP

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION

MNI WICONI PROJECT

SOUTH DAKOTA

Mni Wiconi Project
South Dakota

Location	The project area extends from the central part of South Dakota to near the southwest corner of the State.
Description	The Secretary of the Interior was authorized by Public Law 100-516 and Public Law 102-575 to plan, design, construct, operate, maintain, and replace a municipal, rural, and industrial water system generally described in a February 1988 planning report, to be known as the Oglala Sioux Rural Water Supply System. Public Law 103-434 added the Rosebud and the Lower Brule Indian Reservations to the original project, expanded the Oglala Sioux Rural Water System, and changed the Federal funding maximum to 80 percent of the total costs of the non-Indian portion of the project. In carrying out this task, the Secretary, with the concurrence of the Rosebud Sioux, Lower Brule and Oglala Sioux Tribal Council, have entered into agreements with the appropriate non-Federal entities for planning, designing, constructing and operating the Rosebud Sioux Rural Water System and the Lower Brule Sioux Rural Water Systems and maintaining and replacing the Oglala Sioux Rural Water Supply System. The Secretary has also entered into a cooperative agreement for the planning and construction of the West River/Lyman-Jones Rural Water Systems. Federal funding is limited to no more than 80 percent of the total costs allocated to these systems. The project will provide rural water for domestic and livestock uses and municipal and industrial water to the Pine Ridge, Rosebud, and Lower Brule Indian Reservations and the South Dakota Counties of Stanley, Haakon, Lyman, Jones, Jackson, Mellette and, Pennington. The project will treat a combination of groundwater and Missouri River water and deliver potable water via pipelines throughout the project area. The Indian Self-Determination Act applies to planning, design, construction, and operation. Public Law 102-575, Title X, Section 1001(1) authorized the Secretary of the Interior to perform planning studies and need assessment for the Rosebud Sioux Reservation. Public Law 102-575, Title X, Section 1001(B) authorized the Secretary of the Interior to construct White Clay and Wakpamni District facilities as soon as the Final Engineering Report and National Environmental Policy Act requirements for these Districts were completed.
Authorization	Public Law 100-516, October 24, 1988. Public Law 102-575, October 30, 1992. Public Law 103-434, October 31, 1994.
Land certification	None required.
Definite plan report	None required.

Mni Wiconi Project . . . .

Benefit cost ratio as
of October 1, 1996 Direct Benefits: 1/

1/ Not required under authorizing legislation Public Law 100-516, because the authorized project is not subject to Reclamation requirements.

Completion data FY 2003 1/

1/ According to Public Law 103-434, funds may only be made available through the end of year 2003. The project is 12 percent complete as of September 30, 1995. Percent complete remained the same when calculated using increased total estimated cost from adding Rosebud Sioux and Lower Brule water systems.

Summarized Financial Data

Total Federal obligations			
Reclamation	$250,341,000	Allotments to 9/30/95	$ 32,017,455
Other Federal		Allotments for FY 1996	21,140,000
Recreational/FWL	- 0 -		
Net property and other transfers			
Federal participation 1/		Allotments to date	53,157,455
Non-Federal participation	12,900,000	Allotments for FY 1997	28,350,000
Adjustments 2/	4,480,000		
Total to be allocated	$267,721,000	Balance to complete	$168,833,545

1/ The cost-sharing requirements for the West River Rural Water System and the Lyman-Jones Rural Water System is 20 percent of the costs allocated to these two non-Indian systems as specified in Sec. 4(a)(3) of Public Law 102-516, as amended. The cost for these two systems is currently estimated to be $64.51 million. Section 3(d) specifies that all joint costs associated with common features of the five systems be allocated to the Oglala Sioux Rural Water Supply System, which is nonreimbursable.

2/ Pick-Sloan power assigned costs.

Project Cost Allocation

Allocation	FY 1996 Estimate	FY 1997 Estimate
M&I	$267,721,000	$267,721,000
Flood Control	- 0 -	- 0 -
Total	$267,721,000	$267,721,000

Cost allocation methodology The methodology of the cost allocation has not been modified from last year. All joint costs are assigned as nonreimbursable under Section 3(d) of the Act.

Project Repayment

Repaid by	Amount
Non-Federal Cost-Share 1/	$ 12,900,000
Nonreimbursable 2/	$254,821,000
Total	$267,721,000

1/ The amount of non-Federal cost-share will be covered by cooperative agreements with non-Indian beneficiaries prior to expenditure of Federal funds. Federal contribution to the West River/Lyman-Jones Rural Water Systems may not exceed 80 percent of the total cost of these systems.

2/ All of the cost of the Oglala Sioux Rural Water Supply System and 80 percent of the cost of the West River and Lyman-Jones Water Supply Systems are nonreimbursable under provision of Public Law 100-516, as amended by Public Law 103-434.

Status of repayment contracts No repayment contracts are anticipated. Cooperative agreements providing for work and commitment of non-Federal funds will be executed prior to construction.

Irrigation investment per acre Not required. The law prohibits the use of funds for irrigation purposes.

Status of NEPA compliance NEPA decision document (FONSI) was completed in October 1993. An amendment was signed in June 1995.

Other information Public Law 103-434 amended the existing legislation to include the Rosebud and Lower Brule Indian Reservations and the Mni Wiconi Project, expanded the Oglala Sioux Rural Water System, and increased the Federal share of constructing the West and the Lyman-Jones Rural Water Systems. Funds are authorized to be appropriated through the end of the year 2003.

Appropriation ceiling Appropriations authorized are $263,241,000 (October 1992). The comparable Federal obligation is $250,341,000 which does not exceed the appropriation ceiling. The final engineering report that shows the authorized appropriation of $263,241,000 includes the non-Federal as well as the Federal portion of the project. The final engineering report does not provide adequate information to index the authorized appropriations or the project cost estimates, however this information will be available by July 1996.

Work proposed for FY 1997

Pine Ridge Reservation Rural Water System

Oglala Sioux Rural Water System - Design and construction activities will continue on the water supply facilities. The intake and water treatment plant will be completed and construction will begin on the core pipeline.	**$ 9,409,000**
Oglala Sioux Rural Distribution System - Design and construction activities will continue on the distribution system.	**7,046,000**
Rosebud Sioux Rural Water System - Design and construction activities will continue on the Rosebud Sioux Rural Water System.	**5,345,000**
Lower Brule Rural Water System - Design and construction ctivities will be continue on the Lower Brule Rural Water System.	**706,000**
Non-Indian Rural Water Systems	
West River/Lyman Jones Rural Water Systems - Design and construction activities will continue on the West River / Lyman Jones Rural Water systems.	**6,344,000**
Non-Federal contributions	**$ - 500,000**
Total request	**$28,350,000**

National Fish and Wildlife Foundation

Location Activities are located in the 17 Western States.

Description Action is needed to implement conservation and enhancement projects for the fish, wildlife, and habitat associated with Reclamation's programs. The National Fish and Wildlife Foundation (NFWF) was established by Congress in 1984 to support the programs of the U.S. Fish and Wildlife Service and other Interior and non-Interior agencies.

Using existing authorities, Reclamation has been involved with the NFWF on a limited basis since FY 1994. The program operates under a delegated grant of authority from the Secretary to the Commissioner of the Bureau of Reclamation for fish and wildlife assistance programs. Reclamation's funds will be used on joint, cost-shared, projects with the NFWF who will use these funds to leverage non-Federal dollars on a 1:1 matching basis to provide increased funding and enable partnerships with non-Federal entities. Federal funds will be expended only when firm cost-sharing committments are provided.

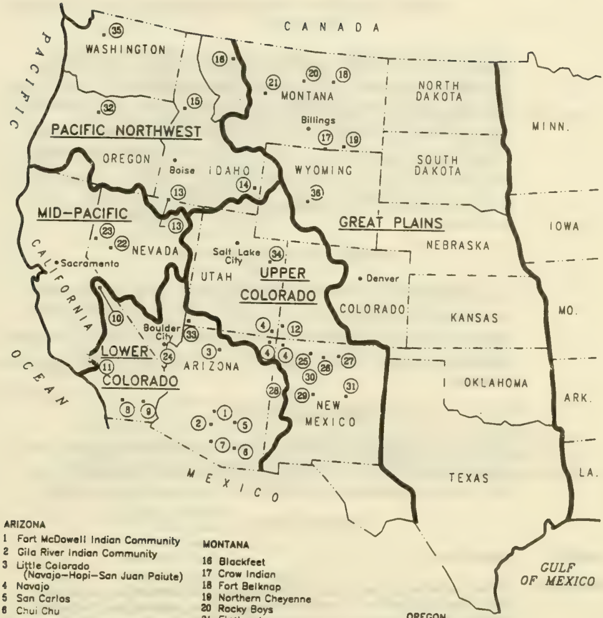
A portion of Reclamation's water resource management responsibility is to conserve and enhance fish, wildlife, and habitat resources. This program provides a way to meet this responsibility while minimizing the Federal cost. It should also be noted that neither Federal nor non-Federal matching funds will be used to fund the operations of NFWF. All operating funds are raised from private sources.

Duration Initiation: FY 1996 Completion: As required

Cost-sharing Funds are available from a variety of State, local, private, and public entities on a 1:1 or greater matching basis. Funding and/or in-kind services from other Federal agencies will be provided on some projects.

Summarized Financial Data

FY 1996 allotment	$1,400,000	FY 1997 request	$2,500,000
Prior year funds	- 0 -		
Non-Federal cash	1,627,500	Non-Federal cash	2,000,000
Non-Federal non-cash	1,627,500	Non-Federal non-cash	2,000,000
FY 1996 total program	$4,655,000	FY 1997 total program	$6,500,000



ARIZONA

1 Fort McDowell Indian Community
2 Gila River Indian Community
3 Little Colorado (Navajo–Hopi–San Juan Paiute)
4 Navajo
5 San Carlos
6 Chui Chu
7 Southern Arizona Water Rights Settlement Act (SAWRSA)

CALIFORNIA

8 San Luis Rey
9 Torres–Martinez
10 Owens Valley
11 Soboba

COLORADO

12 Southern Utes/Ute Mountain Utes

IDAHO

13 Duck Valley
14 Fort Hall
15 Nez Perce

MONTANA

16 Blackfeet
17 Crow Indian
18 Fort Belknap
19 Northern Cheyenne
20 Rocky Boys
21 Flathead

NEVADA

22 Fallon
23 Pyramid Lake
13 Duck Valley
24 Las Vegas Paiute

NEW MEXICO

25 Aamodt (Pueblos–Nambe, Pojoaque, San Ildefonso, Tesuque)
26 Jicarilla Apache
27 Pueblo of Taos
28 Pueblo of Zuni and Ramah Band, Navajo
29 Pueblos of Acoma and Laguna
30 Pueblos of Zia, Jemez, and Santa Ana
31 San Juan Pueblos

OREGON

13 Duck Valley
32 Warm Springs

UTAH

33 Shivwits Paiute
34 Uintah and Ouray Utes

WASHINGTON

35 Lummi Nation

WYOMING

36 Wind River

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
WASHINGTON, D.C.

NATIVE AMERICAN AFFAIRS PROGRAM

NATIVE AMERICAN AFFAIRS PROGRAM
Various States

The Native American Affairs Program funds support selected Reclamation activities with Indian Tribes. The activities include technical support for water right settlements; execution of Reclamation policies and procedures upholding the Secretary's Indian Trust responsibility; coordination and execution of a technical assistance program to Tribes in accordance with applicable section of Reclamation's implementation plan; support for the Indian Self-governance and Self-determination programs; and training Reclamation employees and members of federally recognized Tribes in water resources related areas. These activities are consistent with the President's policy described in his memorandum for the heads of Executive Departments and Agencies, titled "Government-to-Government Relations With Native American Tribal Governments," dated April 1994.

GENERAL ADMINISTRATION

This activity funds the coordination and administration of Reclamation's Native American Affairs Program including its outreach to Tribes. Reclamation has a Native American Affairs Office in the Commissioner's Office and Program Managers in each of its five regional offices and several Area Offices. It provides staff training, including cultural awareness and Indian Self-determination workshops designed to educate the staff to work more effectively with Native Americans.

TECHNICAL ASSISTANCE

This activity funds technical assistance to federally recognized Tribes and Tribal members and includes: developing water resources, including rural water supplies, on Indian reservations through traditional and innovative technologies; and developing partnerships in water resources and related resource training.

NEGOTIATIONS

Location Various States

Description Ongoing activities primarily include participation on Federal Indian negotiating teams, the performance of technical studies, and the gathering and technical analysis of data to assist in negotiations. Reclamation currently participates in the following negotiations:

Aamodt - New Mexico
Acoma - Laguna Pueblo - New Mexico
Blackfeet - Montana
Crow - Montana
Duck Valley - Idaho and Nevada
Flathead - Montana
Fort Belknap - Montana

Native American Affairs Program ....

Gila River Indian Community - Arizona
Jemez - New Mexico
Las Vegas Paiute - Nevada
Little Colorado (Hopi, Navajo, San Juan Southern Paiute, Zuni Pueblo, White Mountain Apache) - Arizona, New Mexico
Lummi - Washington
Nez Perce - Idaho
Rocky Boys - Montana
Soboba - California
San Juan Pueblo - New Mexico
Santa Ana - New Mexico
Shivwits Paiute - Utah
Taos - New Mexico
Warm Springs - Oregon
Zuni Pueblo and Ramah Band (Navajo) - New Mexico
Zia Pueblo - New Mexico

IMPLEMENTATION

Location Various States

Description Funding for implementation of Indian water rights settlements is generally contained in the Bureau of Indian Affairs budget. However, the Bureau of Reclamation has implementation responsibility for work that is specifically directed which is included within ongoing Construction projects, such as Southern Arizona Water Rights Settlement Act ($7 million), or incidental in nature. Teams on which Reclamation currently participates are:

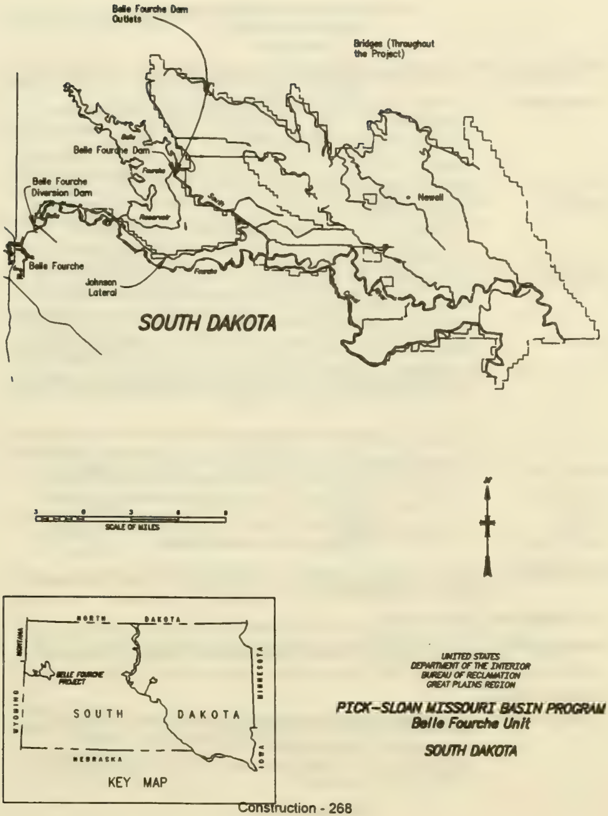
Fallon - Nevada
Fort Hall - Idaho
Fort McDowell - Arizona
Jicarilla - New Mexico
Northern Cheyenne - Montana
Pyramid Lake - Nevada
San Carlos - Arizona
San Luis Rey - California
SAWRSA - Arizona
Southern Utes - Colorado
Uintah and Ouray Utes - Utah
Ute Mountain Utes - Colorado
Wind River - Wyoming
Yavapai-Prescott - Arizona

Summarized Financial Data

The FY 1997 distribution of funds for the four activities within this program are as follows:

Administration:	$2,561,000
Technical Assistance:	2,933,000
Negotiations:	675,000
Implementation work:	590,000
	$6,759,000

FY 1996 allotment	$4,225,000	FY 1997 request	$6,759,000
Prior year funds	737,585		- 0 -
FY 1996 total program	$4,962,585	FY 1997 total program	$6,759,000


Belle Fourche Dam Outlets
Bridges (Throughout the Project)
Belle Fourche Dam
Belle
Fourche
Reservoir
Belle Fourche Diversion Dam
Belle
Belle Fourche
Johnson Lateral
Fourche
Newell
SOUTH DAKOTA
3 0 3 6 9
SCALE OF MILES
N
NORTH DAKOTA
MONTANA
BELLE FOURCHE PROJECT
WYOMING
SOUTH DAKOTA
MINNESOTA
NEBRASKA
IOWA
KEY MAP
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION
PICK-SLOAN MISSOURI BASIN PROGRAM
Belle Fourche Unit
SOUTH DAKOTA

Pick-Sloan Missouri Basin Program
Belle Fourche Unit
South Dakota

Location The unit is located in Butte and Meade Counties of western South Dakota.

Description Construction of the single-purpose, originally authorized project was completed in 1914. The project furnishes a full supply of irrigation water to 57,068 acres of irrigable land. The principal crops grown on the unit are alfalfa, hay, and corn. Other crops include oats, barley, and forage crops consisting of silage and grass hay. Most crops are used extensively for livestock feeding in the area. Rehabilitation and betterment construction was accomplished from 1950 to 1953. It consisted of replacement of valves in outlet works of the dam, replacement of major structures in canals and laterals, and improvement of the drainage system. Further modernization and improvement of project facilities was included in the legislation reauthorizing the general plan as a unit of the Pick-Sloan Missouri Basin Program. This reauthorized project will (1) restore the reliability of the system, (2) reduce annual operation and maintenance costs, (3) conserve irrigation water by a reduction of seepage losses and operational wastes, (4) provide measuring devices for the equitable and efficient distribution of the water supply, (5) provide safety features for the protection of human life, (6) restore design capacity to the system to avoid overloading it and thus eliminate the risk of system failure, (7) reclaim agricultural lands affected by seepage losses, and (8) ensure the continued social and economic welfare of the area.

Additional appropriation ceiling was approved under Public Law 103-434 to complete work that was not accomplished under the original authorization. This work includes protection and repair of the Whitewood Siphon; reconstruction of the outlet structures at Belle Fourche Dam; lining two reaches of the South Canal; lining, structure replacement, and siphon construction on Johnson Lateral; replacement of deteriorating Reclamation bridges; and a continuation of contract support work and small lateral rehabilitation by the Belle Fourche Irrigation District.

Authorization Public Law 98-157, November 17, 1983, as amended by Public Law 103-434, Title IX, October 31, 1994.

Land certification None required.

Definite plan report None required. Rehabilitation and Betterment Report was completed January 10, 1981.

Benefit cost ratio as of October 1, 1996 There was no benefit-cost ratio derived for use in the reauthorization process for the Belle Fourche Unit (Public Law 98-157). Studies, completed prior to reauthorization, were for a loan under the Rehabilitation and Betterment Act (63 Stat. 724 as amended and supplemented) which requires no benefit-cost ratio.

P-SMBP, Belle Fourche Unit . . . .

Completion data As of September 30, 1995, the project is 79 percent complete. As stated in the FY 1996 Justifications, Federally funded work under the extended project will be completed in FY 1998.

Summarized Financial Data

Total Federal obligations			
Reclamation	$62,076,000	Allotments to 9/30/95	$51,370,694
Other Federal		Allotments for FY 1996	3,802,000
Recreational / F&WL			
Net property and other transfers			
Federal participation 1/	8,300,963	Allotments to date	$55,172,694
Non-Federal participation	4,000,000	Allotments for FY 1997	5,100,000
Adjustments	-1,963		
Total to be allocated	$74,375,000	Balance to complete	$ 1,803,306

1/ Includes $8,141,819 for features completed under the original authorization, $130,000 for preauthorization investigations, and $29,144 for minor adjustments.

Project Cost Allocation

Allocation	FY 1996 Estimate	FY 1997 Estimate
Irrigation	$71,085,383	$70,810,383 1/
Safety of Dams	1,918,534	1,918,534
Other 2/	1,646,083	1,646,083
Total 3/	$74,650,000	$74,375,000

1/ Includes $4,733,661 from previous construction appropriations, $62,076,000 for the expanded construction program, $4,000,000 of non-Federal funding, and $722 for rounding.

2/ Includes $130,000 for preauthorization investigations, $33,783 for recreation facilities, $1,479,300 of charge-offs authorized by Congress, and $3,000 for miscellaneous costs.

3/ Decrease from FY 1996 reflects an error in the indices data base used to calculate ceilings.

Cost allocation methodology The methodology of the cost allocation has not been modified from last year.

Project Repayment

Repaid by	Amount
Irrigators 1/	$ 8,820,000
Power 2/	57,990,000
Nonreimbursable 3/	3,565,000
Non-Federal funding	4,000,000
Total	$74,375,000

1/ The amount to be repaid is covered by existing contracts with the project beneficiaries.

2/ The amount to be repaid by power is currently identified for repayment from net power revenues generated by the Pick-Sloan Missouri Basin Program power rate. The current amount reflects existing contracts with project beneficiaries for the work authorized under the Pick-Sloan Missouri Basin Program. The irrigation repayment contract has been amended to initiate repayment in 1996. The additional Federal obligation associated with the extension is beyond the current repayment ability of the project beneficiaries. This amount is added to the power component.

3/ Includes $1,918,534 allocated to safety of dams, $130,000 for preauthorization investigations, $33,783 for recreation facilities, $1,479,300 of charge-offs authorized by Congress, and $3,383 for rounding.

Status of repayment contract Repayment Contract with Belle Fourche Irrigation District was executed on October 10, 1984, and validated November 2, 1984. The contract will be amended to agree with the amendments to Public Law 98-157.

Irrigation investment per acre

Summary of Irrigation Investment

Total irrigation investment/acre	$1,090
Repayment of irrigation investment per acre by:	
Irrigators	$ 154
Power revenues	936
Payment capacity per acre and/or acre-foot 1/	
Annual charges (per acre)	$20.09
Construction 2/	4.89
Operation and maintenance 3/	15.20

1/ Payment capacity was determined in 1981 and is shown in the Report on Proposed Rehabilitation and Betterment Program, Belle Fourche Project, South Dakota, and is the basis of the current repayment contract. Payment capacity was updated in 1995.

2/ Current repayment amounts to $1.17 per acre and will continue until completion of construction. After construction is complete, repayment is estimated at $4.89 per acre.

3/ Current operation, maintenance and replacement costs as reported by the Belle Fourche Irrigation District.

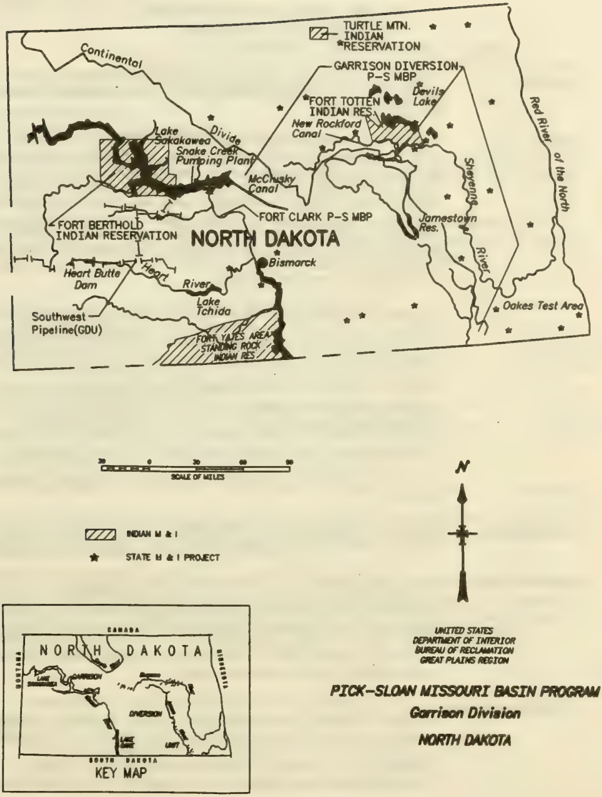
Status of NEPA compliance Finding of No Significant Impact (FONSI UM 80-103) signed June 30, 1980. FONSI UM 80-103 also applies to expanded program.

Other information Funds were first appropriated under the General Investigations appropriation in FY 1976 for preparation of a report to describe a rehabilitation and betterment program. This report was completed in January 1981. Funds to initiate preconstruction activities for the modernization and improvement of project facilities as a unit of the Pick-Sloan Missouri Basin Program were appropriated in FY 1985.

Appropriation ceiling Appropriations authorized are $62,076,000 (October 1996). Public Law 103-434 increased the ceiling by $10,500,000 to fund the expanded program. The comparable Federal obligation is $62,076,000. The authorized ceiling is adequate to cover this project as currently proposed.

Work proposed for FY 1997

Bridge Structures - Inlet and Stage 2 of the bridge replacement program will be completed. Stages 3 and 4 will be initiated. These will be funded with non-Federal funds.	**$ 2,105,000**
South Canal - A contract for buried membrane lining will be initiated and one will be completed. Rehabilitation of Whitewood Siphon will be initiated.	**1,173,000**
Laterals - Two contracts for rehabilitation of Johnson Lateral will be completed and small lateral construction by the Belle Fourche Irrigation District will be continued.	**2,686,000**
Fish and Wildlife Facilities - Minor construction will continue.	**136,000**
Non-Federal funds	**- 1,000,000**
Total request	**$ 5,100,000**



UNITED STATES
DEPARTMENT OF INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION

PICK-SLOAN MISSOURI BASIN PROGRAM
Garrison Division
NORTH DAKOTA

Pick-Sloan Missouri Basin Program
Garrison Diversion Unit
North Dakota

Location This unit is located in the central and eastern part of North Dakota and includes McLean, Burleigh, Sheridan, Wells, Foster, Stutsman, LaMoure, and Dickey Counties.

Description The plan as currently authorized consists of 115,740 acres of irrigated lands. This includes 85,360 acres of lands in the following irrigation areas: McClusky Canalside Irrigation (4,000), Oakes Test Area (5,000), West Side Irrigation Area (14,660), West Oakes Extension Area (4,000), LaMoure Irrigation Area (13,350), New Rockford Canal Area (1,200), New Rockford Irrigation Area (20,935), Lincoln Valley Irrigation Area (6,515), Turtle Lake Irrigation Area (13,700), and Harvey Irrigation Area (2,000). Irrigation is also included for 2,380 acres on the Standing Rock Indian Reservation and for 28,000 acres in unspecified areas but not located in the Hudson Bay, Devils Lake, or James River drainage.

The plan is multipurpose and would provide municipal, rural, and industrial water service to as many as 130 towns and service areas throughout North Dakota and three Indian Reservations, including delivery of 100 cubic feet per second (cfs) of water to the Cities of Fargo and Grand Forks and surrounding areas in Eastern North Dakota. Water delivered into the Hudson Bay drainage would be treated to avoid biota transfer to Canada. Recreation facilities are planned in 11 counties throughout North Dakota. A wildlife mitigation and enhancement plan, a wetland trust, and mitigation of project environmental impacts based on an acre-for-acre with ecological equivalency basis are to be done concurrent with project construction. Flood control facilities are also provided. Concurrence of mitigation for wildlife impacts resulting from project construction to date was achieved in FY 1991.

Authorization Public Law 89-108, August 5, 1965; Public Law 98-360, July 16, 1984; Public Law 99-294, May 12, 1986; Public Law 102-575, October 30, 1992.

Land certification Lands included in the 250,000-acre plan were certified for gravity irrigation in March 1966. Recertification is required on those lands that are a part of the 115,740-acre plan because of the change from gravity to sprinkler irrigation. The 5,000 acres for the Oakes Test Area were recertified in April 1981. Further progress on land certification is on hold as a result of the Secretary's October 1990 Task Group Report, except for the 2,380 acres on the Standing Rock Indian Reservation.

Definite plan report The Definite Plan Report for the 250,000-acre plan was approved February 21, 1966. The Garrison Diversion Unit Commission proposed an alternate plan which includes 130,940 acres of irrigation in its report dated December 20, 1984. Public Law 99-294 reformulated the project substantially in accordance with the Commission's report. Public Law 102-575 eliminated 15,200 acres of irrigation at Fort Berthold making the new total irrigation 115,740 acres. The Definite Plan Report Supplement is not required since the authorized project plan is defined in Public Law 99-294 and Public Law 102-575.

Benefit cost ratio as of October 1, 1996 Direct Benefits: 0.7

The ratio was computed by using the authorized interest rate of 3.125 percent. The benefit-cost ratio remained the same as that shown in the FY 1996 Budget Justifications.

Completion data As of September 30, 1995, the project is 45 percent complete. The completion date for the entire unit has not been identified, in part because the appropriation ceiling is not sufficient as authorized.

Summarized Financial Data

Total Federal obligations			
Reclamation	$1,483,255,000	Allotments to 9/30/95	$547,974,189
Other Federal	- 0 -	Allotments for FY 1996	23,648,000
Net property and other transfers			
Federal participation	28,922,714	Allotments to date	571,622,189
Non-Federal part. 1/	74,927,966	Allotments for FY 1997	21,600,000
Adjustments 2/	89,731,320		
Total to be allocated	$1,676,837,000	Balance to complete	$890,032,811

1/ Includes municipal, rural, and industrial water supply ($66,670,000); non-Federal recreation cost sharing ($6,850,000); funds advanced by the Garrison Diversion Conservancy District ($207,966); and Wetlands Trust ($1,200,000).

2/ Includes assigned costs of Pick-Sloan Missouri Basin Program power and mainstem storage of $57,821,000; reimbursable interest during construction for municipal, rural, and industrial water supply of $27,223,000; highway improvement costs of $4,650,000; Jamestown power assignment of $37,000; and $320 for cumulative rounding, adjustments, and allocations.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Irrigation	$689,816,000	$689,816,000
Power	37,000	37,000
M&I water	774,275,000	774,275,000
Recreation	18,908,000	18,908,000
Fish and wildlife	96,519,000	96,519,000
Flood control	38,550,000	38,550,000
Highway improvement	4,650,000	4,650,000
Other:		
Cultural resources	3,220,000	3,220,000
Wetlands trust	13,201,000	13,201,000
James River completion study	13,582,000	13,582,000
Subtotal, other	30,003,000	30,003,000
Excess capacity	24,079,000	24,079,000
Total	$1,676,837,000	$1,676,837,000

Cost allocation methodology

The current allocation is the result of accepting Interior's Inspector General recommendation on the calculation of excess capacity and other recommended changes. For this allocation that means that only the incremental or marginal costs of unused capacity are excluded. All other costs, including $53,153,000 in sunk costs of unused facilities, are allocated as part of the remaining joint costs to the remaining functions. After the first stage allocation to excess capacity, the allocation follows the separable cost-remaining benefit method.

Costs are based on 10/96 price levels, and are unchanged from those presented in the FY 1996 Budget Justifications. This is because P.L. 99-294 and P.L. 102-575 allowed indexing of costs only for the Indian municipal, rural, and industrial (MR&I) component of the project, and this was scheduled for completion in FY 1995.

P-SMBP, Garrison Diversion Unit . . . .

Project Repayment 1/

Repaid by	FY 1996 estimate	FY 1997 estimate
Irrigators 1/	$674,350,034	$674,350,034
Power 1/	37,000	37,000
M&I water	441,885,000	441,885,000
Non-Federal contribution	74,927,966	74,927,966
Indian-deferred	15,258,000	15,258,000
Nonreimbursable 2/	470,379,000	470,379,000
Total	$1,676,837,000	$1,676,837,000

1/ The estimated operation, maintenance and replacement costs allocated to non-Indian irrigation exceed currently estimated payment capacity by $23 per acre. This makes this portion of the project financially infeasible as currently formulated. Legislation may be required to determine the repayment obligations. The non-Indian irrigation is not being pursued, in accordance with the Secretary's task group report of October 1990. The repayment of the investment in the Indian portion of the project, 2,380 acres on the Standing Rock Indian Reservation, is deferred indefinitely under the Leavitt Act.

2/ Includes MR&I Grant Program ($200,000,000); Fish & Wildlife ($96,519,000); Sheyenne River Release ($40,500,000); Flood Control ($38,550,000); Indian MR&I ($25,220,000); Excess Capability ($24,079,000); James River Completion Study ($13,582,000); Recreation ($12,058,000); Wetlands Trust ($12,001,000); Highway Improvement ($4,650,000); and Cultural Resources ($3,220,000).

Status of repayment contracts Execution of the master contract with Garrison Diversion Conservancy District and three-way contracts between Reclamation, Conservancy District, and Irrigation Districts, containing approximately 113,000 acres of irrigable land, was completed March 16, 1966. Court validation was completed July 26, 1966, and confirmed August 10, 1966. Renegotiation to conform to the reformulation legislation must occur prior to construction activity in irrigation areas. Cooperative Agreement for municipal, rural, and industrial water was executed November 19, 1986. Grant Agreement for North Dakota Wetlands Trust was executed on December 18, 1986. A supplementary agreement for the State cost-share was executed on February 14, 1991, as required by the 1986 Garrison Diversion Unit Reformulation Act. A renegotiated repayment contract with Garrison Diversion Conservancy District has not been completed. Renegotiation of a repayment contract was deferred as a result of recommendations in the Secretary's 1990 Task Group report.

Irrigation investment per acre

Summary of Irrigation Investment 1/

	FY 1997 Estimate
Total irrigation investment/acre	$5,960
Repayment of irrigation investment per acre by	
Irrigators	NA
Power revenues	NA
M&I users	NA
Contributions	2
Indian irrigation (deferred)	NA
Payment capacity per acre and/or acre-foot	$32.01
Annual charges (per acre)	
Construction	NA
Operation and Maintenance	$55.22

1/ The annual operation and maintenance cost exceeds payment capacity under the current allocation. Financial feasibility question resulted in recommendation by Secretary's Task Group that irrigation function not be pursued at this time.

Status of NEPA compliance Projectwide final environmental statement on the 250,000-acre plan was filed with the Council on Environmental Quality January 10, 1974. Supplemental Fish and Wildlife filed with Council on Environmental Quality on May 3, 1974. Final comprehensive supplemental to Final Environmental Statement filed with Environmental Protection Agency on March 7, 1979. The Final Supplemental Environmental Statement on features for initial development of 85,000 acres on the 250,000-acre plan was filed with the Environmental Protection Agency on July 15, 1983.

A draft environmental statement addressing the Garrison Commission recommendations was filed with the Environmental Protection Agency on March 6, 1986. A draft supplement to the Draft Environmental Statement was filed with EPA on December 30, 1986. The reformulated project Final Environmental Statement will not be pursued further due to deferral of work associated with non-Indian irrigation. In the interim, all project activities will comply with NEPA requirements as necessary.

Other information THE COMMISSION PLAN AS MODIFIED: The Garrison Diversion Unit Commission was appointed by the Secretary in accordance with Title II, Section 207, of Public Law 98-360. The Commission was established to examine the contemporary water needs of North Dakota and propose development alternatives which would lead to early resolution of problems identified with the previously authorized 250,000-acre plan. The Commission submitted conclusions and recommendations to the Secretary in their final report dated December 20, 1984. The Garrison Diversion Unit

Reformulation Act of 1986 amends selected portions of the 1965 Garrison Reauthorization Act and authorizes construction of the project substantially in accordance with the Commission recommendations. The Reformulation Act also provides for the following: specific deauthorization of 922,910 acres of previously authorized irrigation; utilizing the State Municipal, Rural, and Industrial proposal which includes up to $200 million in Federal grant funds; sizing certain main supply works to only that capacity necessary to service the authorized project; retaining the status of Sheyenne Lake National Wildlife Refuge unless at some future time the Lonetree Dam and Reservoir is deemed to be necessary and built; eliminating funding constraints on mitigation; eliminating mitigation credit for reservoir sites; requiring purchase of up to 5,000 acres in the Kraft and Pickell Slough areas; requiring special studies on the James River drainage basin with a report to Congress by September 1989; prohibiting construction in irrigation areas until after September 1990; substituting 28,000 acres of undefined irrigation acres and transferring 4,000 irrigation acres to the West Oakes Extension Area to replace 32,000 acres previously specified in the New Rockford Extension Area; requiring a 10 percent surplus crop production charge for growing basic agricultural commodities on project lands; limiting the authorized ceiling and omitting indexing of costs; and establishing a wildlife trust fund involving both Federal and State funding. Details of the Reformulation Act of 1986 are contained in House Report 99-525 dated April 9, 1986.

PRESIDENTIAL POLICY AND DIRECTION: In 1990, a Secretarial task group was established to formulate a program for the Garrison Diversion Unit that was consistent with Presidential policy and direction. The findings of the group were cited by the President in the signing statement for the FY 1991 Energy and Water Development Appropriation Act. The President stated that the Administration would consider funding for certain project features (primarily non-irrigation) as recommended by the task group. The findings of the group were presented to representatives of the State of North Dakota, and the congressional delegation at a meeting in Washington, D.C. on December 12, 1990. Further written documentation was presented to the State by the Secretary of the Interior. The program is formulated to be consistent with the recommendations of the task group. Supported features generally include the State and Indian municipal, rural, and industrial water supply program; irrigation development on three Indian Reservations; continued operation of the Oakes Test Area research activities; recreational and fish and wildlife mitigation and enhancement initiatives; and a minimum level of operation and maintenance of completed facilities. The report also recommended that funding for completion of non-Indian project irrigation facilities and for related principal supply works not be considered.

CANADIAN CONCERNS: The Canadian Government's support for the reformulated project was indicated by Diplomatic Note No. 201 dated March 26, 1985, and in letters commenting on the 1986 draft environmental statement (letters dated April 29, 1986, from Saskatchewan Premier Grant Devine and April 24, 1986, from Manitoba Minister of Natural Resources

Leonard E. Harapiak). Canadian Diplomatic Note No. 177, dated July 2, 1987, transmitted technical comments on the final supplement to the environmental statement and stressed two items. First, Canada is concerned that this supplement does not address adequately many of Canadian concerns about biota transfers from the Missouri River to the Hudson Bay drainage; and second, Canada proposes a joint consultative group meeting to discuss this and other concerns. Reclamation responded to the technical comments and, with Canada, resumed meetings of the United States and Canadian Joint Consultative Group and the Garrison Joint Technical Committee. The Garrison Joint Technical Committee met in mid-January 1990 in Winnipeg, Manitoba, to discuss mutual concerns of the United States and Canada. Such concerns include location of Sykeston Canal; irrigation in several of the irrigation areas including Lincoln Valley, Harvey Pumping, and New Rockford; the Robinson Coulee diversion proposal; the operation of the Sheyenne River Water Treatment Facility; the Devils Lake Basin; municipal and industrial systems which convey Missouri River water into the Hudson Bay drainage; and the Coal Mine Lake fishery. The Garrison Joint Technical Committee established an Engineering Task Force and a Biological Task Force to address these and other United States and Canadian concerns.

The Engineering and Biological Task Force reports were completed in July and September 1990, respectively. The Joint Technical Committee Report was presented to the Consultative Group December 13, 1990, and was accepted by that group. The primary issue considered by the Joint Technical Committee was the connection between the McClusky and New Rockford Canals. The Joint Technical Committee concluded that there were three options which are potentially acceptable from the standpoint of risk to Canadian waters. The Consultative Group concluded that from a technical standpoint, any one of three options could be constructed without significant risk to water flowing into Canada, but that each one should be subject to further public review to ensure public acceptability before the final selection.

COLLABORATIVE PROCESS: In December 1993, the Commissioner of the Bureau of Reclamation agreed that Reclamation would assist in facilitating a process with the purpose of discussing the possible reformulation of the Garrison Diversion Unit. The result of this agreement was the North Dakota Water Management Collaborative Process. An Executive Steering Committee (ESC) consisting of a representative of the Governor of North Dakota, a representative of each of North Dakota's Congressional delegations, a representative from each of North Dakota's Indian Tribes, and a representative of the National Wildlife Federation was established. The ESC first met on February 14, 1994. Subsequent meetings were held. The collaborative process continued until April, 1995, when the National Fish and Wildlife Federation dropped out in response to action taken by the State of North Dakota which had repealed its "No Net Loss of Wetlands" policy. Because further meetings would no longer include all of the stakeholders and thus would be unable to achieve a consensus, Reclamation, in June of 1995, notified the Garrison Diversion

Conservancy District that it would no longer participate in the collaborative process. However, Reclamation did recognize the progress that had been made and committed support of ongoing studies.

Appropriation ceiling

Appropriations authorized are $628,350,000. The comparable Federal obligation is $1,483,255,000, which exceeds the appropriation ceiling by more than the amount of contingencies included in the obligation. Current commitments will be held within the existing ceiling.

House Report 99-525, which supports Public Law 99-294 states:

"The Committee notes that these funds would provide sufficient authorization for the construction of all the supply works and only $100 million of the total $322 million required to complete construction of the irrigation service facilities. This will mean that an increase in authorizations will be required in order to complete the irrigation service areas, as authorized by H.R. 1116. The Committee believes this is the best way to ensure oversight of the construction progress on the project. In addition, the Committee would note that the authorization of appropriation figures are not indexed to increase with inflation. The authorization of appropriations are not indexed in order to force additional enactment of authorizations at some future date. This will ensure the proper oversight and involvement of the authorizing committees."

Work proposed for FY 1997

SUPPLY SYSTEM

Snake Creek Pumping Plant - Minimum operation and maintenance of completed facilities will continue. $ 210,000

McClusky Canal - Minimum operation and maintenance will continue as required to maintain freshening flows for Audubon Lake and adjoining lakes and wildlife areas. 1,650,000

New Rockford Canal - Minimum operation and maintenance of completed facilities will continue. 365,000

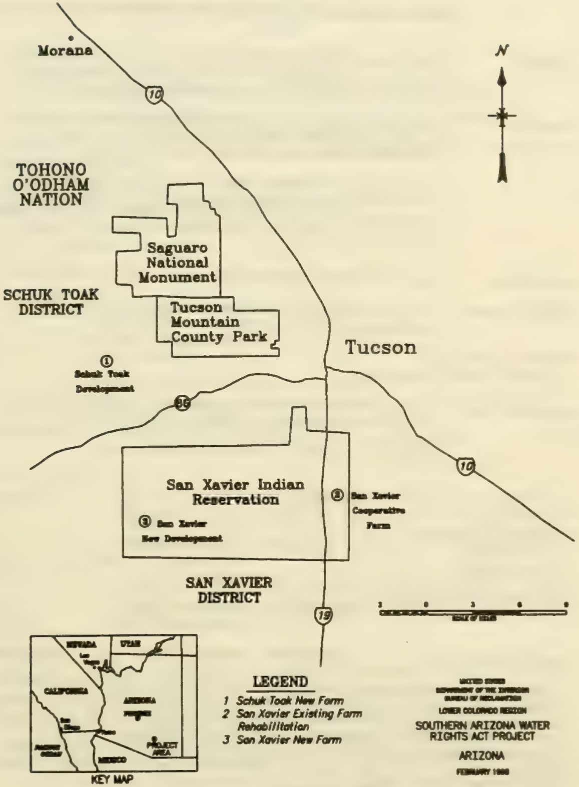
IRRIGATION FACILITIES - NON-INDIAN

Oakes Test Area - Minimum maintenance of physical facilities will continue. 280,000

IRRIGATION FACILITIES - INDIAN

Standing Rock - Minor contracts for irrigation development on the Standing Rock Reservation will be awarded. 2,526,000

DOMESTIC AND RURAL WATER	
Municipal, Rural, & Industrial Systems - Oversight of preconstruction and construction activities on approved State municipal, rural, and industrial system projects will continue.	**$ 14,653,000**
TRUST FUNDS - FEDERAL	
Wetlands Trust Fund - FY 1996 was the final year for Federal contribution to the Wetlands Trust Fund for a maximum Federal contribution of $12.0 million. The FY 1997 amount is the State of North Dakota's cost-share contribution to the trust fund.	**75,000**
GENERAL FACILITIES	
Permanent Operating Facilities - Activities related to the project will continue.	**280,000**
Fish and Wildlife Mitigation and Enhancement - Land acquisition and mitigation development will continue at the Audubon and Arrowwood Refuges, the Kraft Slough, and mitigation development will continue at the Lonetree Development Area.	**5,011,000**
Recreation Facilities - Construction of recreation facilities will continue at McClusky Canal and other areas.	**200,000**
Non-Federal Participation - State of North Dakota contributions to municipal and industrial, Wetland Trust Fund, and recreation program - $3,475,000, $75,000; and $100,000 respectively.	**- 3,650,000**
Total request	**$ 21,600,000**



Construction - 284

Southern Arizona Water Rights Settlement Act
Arizona

Location These projects are located in the San Xavier and Schuk Toak Districts of the Tohono O'odham Nation in Pima County, Arizona. Facilities are authorized by the Southern Arizona Water Rights Settlement Act of 1982.

Description This project includes all work funded by Reclamation for construction of Southern Arizona Water Rights Settlement Act facilities. Settlement negotiations are also carried out under this project.

The Southern Arizona Water Rights Settlement Act of 1982 authorizes Reclamation to provide facilities which could deliver 66,000 acre-feet of water annually to the Tohono O'odham Nation. These distribution facilities will provide a permanent water supply to approximately 11,730 acres of land.

Authorization Snyder Act, November 2, 1921; Public Law 97-293, October 12, 1982.

Land certification Land certification work needed to support the Southern Arizona Water Rights Settlement Act was completed on June 28, 1990.

Benefit cost ratios as of October 1, 1996 Not applicable.

Completion data The Southern Arizona Water Rights Settlement Act requires delivery to the Tohono O'odham Nation to begin prior to October 12, 1992. Additional legislation extended the completion date by 9 months. The current program reflects an anticipated completion date of 2002.

Summarized Financial Data

Total Federal Obligations			
Reclamation	35,795,000	Allotments to 9/30/95	- 0 -
Other Federal		Allotments for FY 1996	- 0 -
Net Property and other transfers			
Federal participation1/	$14,299,000	Allotments to Date	- 0 -
		Allotments for FY 1997	7,000,000
Total to be Allocated	$50,094,000	Balance to complete	$28,795,000

1/ This amount includes funds appropriated to the Bureau of Indian Affairs and transferred to Reclamation prior to FY 1990 ($4,964,000), funds appropriated directly to Reclamation under the Indian Water Rights Settlement Act Project from FY 1991 through FY 1993 ($1,822,000) and funds appropriated to BIA for FY 1994 through FY 1996 ($7,513,000) and transferred to Reclamation. Beginning in FY 1997 through completion, funds are being sought under the Reclamation construction program to simplify funding arrangements and because of the agency's expertise in the work being done.

Southern Arizona Water Rights Settlement Act . . . .

Project Repayment

Repaid By	Amount
Non-reimbursable 1/	$35,795,000

1/ All costs associated with delivery of water are nonreimbursable under the Southern Arizona Water Rights Settlement Act.

Status of Repayment Contract No repayment contracts are required.

Irrigation Investment Per Acre

Summary of Irrigation Investment

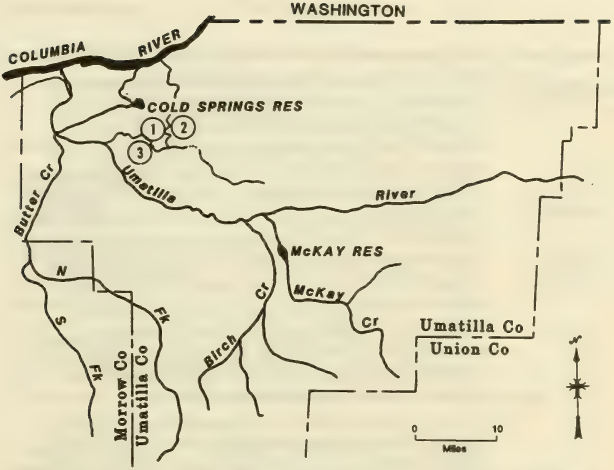
Total Irrigation Investment/Acre	$4,271
Repayment of Irrigation Investment Per Acre by:	
Indian Irrigation	$4,271
Payment Capacity per Acre and/or Acre-foot:	
Annual Charges (per Acre):	$ N/A
Construction	
Operation and Maintenance	

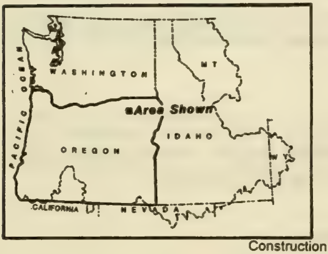
Status of NEPA Compliance The Tohono O'odham Nation's San Xavier District, Final Environmental Statement was issued November 2, 1989, and its Schuk Toak District was covered by a Finding of No Significant Impact March 21, 1989. A Record of Decision was never finalized on the San Xavier New Farm Development.

Other Information In addition to the funds provided under the Southern Arizona Water Rights Settlement Act project, the Central Arizona Project will fund 67 percent of the Schuk Toak New Farm Development and 69 percent of the San Xavier New Farms.

Appropriation ceiling The Southern Arizona Water Rights Settlement Act does not provide an overall appropriation ceiling; however, Section 303 (a)(4) contains an appropriation authorization of $3,500,000 plus or minus indexing for those features of the project which are not authorized to be constructed under any other provision of law. The indexed appropriations authorized are $6,069,000 (October 1996). The San Xavier District and the remainder of the Schuk Toak District new farm will be constructed under the provision of the Snyder Act which does not specify an appropriation ceiling.

Work Proposed for FY 1997	Design of the Schuk Toak New Farm will be finalized and a construction contract will be awarded. The construction contracts for the San Xavier Existing Farm bank stabilization will be completed and cultural surveys, design, and construction work will be initiated on the farm rehabilitation. Efforts associated with the negotiation of general SAWRSA issues will be ongoing.	**$7,000,000**
	Total request	**$7,000,000**





1 STANFIELD CANAL
2 STANFIELD RELIFT PUMP
3 STANFIELD RELIFT CANAL & SIPHON

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION
UMATILLA PROJECT

Umatilla Basin Project
Oregon

Location This project is located in the Umatilla River Basin in northeastern Oregon.

Description The purpose of the project is to mitigate fishery losses by restoring salmon and steelhead runs in the Umatilla River. The project is needed to meet treaty reserved fishing rights of the Confederated Tribes of the Umatilla Indian Reservation while continuing the existing water service to the Hermiston, West Extension, Westland, and Stanfield Irrigation Districts and any other entity which participates in the project water exchange. The program includes a large pumping complex on the Columbia River, small pumping facilities near the mouth of the Umatilla River, and fish passage improvements at several irrigation diversions. The pumping plants will supply irrigators within the existing Umatilla Project with some of their water so that flows now diverted from the Umatilla River for irrigation will remain in the river to enhance flow conditions for salmon and steelhead migration, spawning, and rearing. Interest in the project is high among non-Indian irrigators because it allows the Federal Umatilla reclamation project to meet existing water supply commitments, while reaffirming the Confederated Tribes of the Umatilla Indian Reservation Indian treaty fishing rights. Passage of the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Public Law 96-501) allows for tributary fishery enhancement, such as in the Umatilla Basin, to mitigate anadromous fish losses resulting from construction of Columbia River dams for power production through offsite enhancement programs.

This project is necessary to try to resolve the conflict and avoid future litigation between fishery and irrigation water users in the Umatilla River basin. Construction of fish passage facilities was completed with funding by Bonneville Power Administration under authority of the Pacific Northwest Power Planning and Conservation Act in order to maintain project continuity and meet the objectives of all water user interests.

Authorization Public Law 100-557; October 21, 1988.

Land certification None required.

Definite plan report None required. The project was authorized on the basis of the information provided in the Planning Report/Environmental Impact Statement.

Benefit cost ratio as of October 1, 1996 Direct Benefits: 1.3

The ratio was computed using the authorized project interest rate of 8-7/8 percent. The project evaluation guidelines provide for identification of direct benefits only. Justification for project construction was based on the Federal Government's implicit treaty obligation to the Confederated Tribes. The B/C ratio is shown for information purposes only.

Umatilla Basin Project . . . .

Completion data The project's first phase, the West Extension Irrigation District water exchange facilities, was completed in November 1992 and is now in service. As of September 30, 1995, the project was 61 percent complete. This is a decrease from that shown in the FY 1996 Budget Justifications due to a increase in the total estimated cost to complete.

Summarized Financial Data

Total Federal obligations			
Reclamation	$57,362,000	Allotments to 9/30/95	$38,186,576
Other Federal	- 0 -	Allotment for FY 1996	6,875,000
Net property and other transfers			
Federal participation 1/	3,245,000	Allotments to date	45,061,576
Non-Federal participation 2/	4,139,000	Allotment for FY 1997	4,900,000
Adjustments	- 0 -		
Total to be allocated	$64,746,000	Balance to complete	$ 7,400,424

1/ Includes preauthorization investigation and advance planning costs.

2/ Non-Federal contributions from Bonneville Power Administration power user revenues.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Fish and wildlife	$58,473,000	$64,746,000 1/
Total	$58,473,000	$64,746,000

1/ The increase in the total is due to increased contract requirements based on modifications and revised estimate. The increase is also due to revised requirements for tribal participation, hydrology modeling, and activities related to negotiation of water rights, out of boundary deliveries, and system monitoring and testing.

Project Repayment

Repaid By	Amount
Non-Federal contributions 1/	4,139,000
Non-reimbursable 2/	60,607,000
Total	$64,746,000

1/ Non-Federal contributions from Bonneville Power Administration power user revenues.

2/ Federal portion of costs authorized as nonreimbursable.

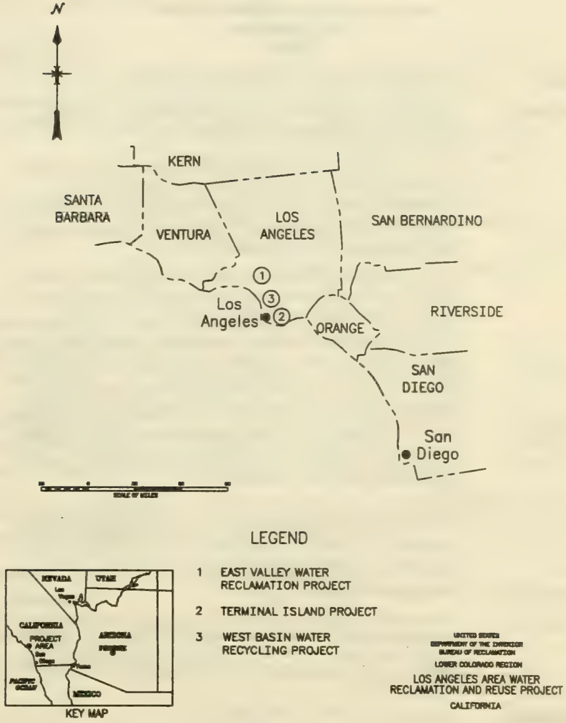
Status of repayment contracts None required.

Status NEPA compliance Final Environmental Impact Statement was filed on February 12, 1988.

Appropriation ceiling Appropriations authorized are $50,369,000 (October 1996). The comparable estimated total Federal obligation is $57,362,000 which exceeds the appropriation ceiling by more than the amount of contingencies included in the authorization. This authorization is not adequate to cover the project as currently proposed. Appropriate Congressional committees will be advised of the appropriation ceiling status for this project. Authorizing legislation would be required to increase the appropriation ceiling to complete the project as authorized. Current commitments will be held within the existing ceiling. Total Federal obligations include $1,000,000 for lease/ purchase of water rights as authorized, which is in addition to the appropriation ceiling.

Work proposed for FY 1997

Columbia-Cold Springs Canal - A variable speed pump will be completed.	**$ 150,000**
Stanfield Canal and Relift Pumping Plant - Construction of the Stanfield Relift Pumping Plant will be completed. The Stanfield Branch-Furnish Ditch contract will be awarded.	**4,050,000**
Other Project Costs - Provides for lease/purchase of water rights, and tribal participation.	**700,000**
Total request	**$4,900,000**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LEGEND
1 EAST VALLEY WATER RECLAMATION PROJECT
2 TERMINAL ISLAND PROJECT
3 WEST BASIN WATER RECYCLING PROJECT
NEVADA
UTAH
Las Vegas
CALIFORNIA
PROJECT AREA
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KEY MAP
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION
LOS ANGELES AREA WATER RECLAMATION AND REUSE PROJECT
CALIFORNIA

Water Reclamation and Reuse Program
Los Angeles Area
California

Location This project is located in Los Angeles County, California.

Description This project consists of three units, the West Basin Water Recycling Project, the East Valley Water Reclamation Project, and Terminal Island Water Reclamation Project.

The West Basin Water Recycling Project will annually use about 70,000 acre-feet of wastewater from the existing Los Angeles Hyperion Wastewater Treatment Plant that will be pumped to a recycling facility for further treatment and then distributed for various uses including industrial process water, landscape irrigation, and for direct injection into the local groundwater basin to prevent seawater intrusion.

The East Valley Water Reclamation Project will use the existing Tillman Water Reclamation Plant as the source water for the project, which has been split into two phases. During the first phase, facilities will be constructed to enable initial spreading of 10,000 acre-feet of recycled water per year for groundwater recharge using existing spreading grounds. The amount of recycled water spread will be increased during this phase of operation if approved by regulatory agencies, pending their review and evaluation of monitoring results. During the second phase, additional facilities will be constructed to convey recycled water to other spreading grounds to increase spreading capacity and to enable the use of recycled water for industrial and landscape irrigation purposes. Upon completion, the project will use 35,000 acre-feet of recycled water per year. The project consists of the construction of 13 miles of large diameter pipe, a 2-million-gallon storage tank, and pump stations.

The Terminal Island Water Reclamation Project will annually use about 15,000 acre-feet of recycled water from the existing Terminal Island Treatment Plant in the Los Angeles harbor area for landscape irrigation, industrial process water, and direct injection into a seawater intrusion barrier. The project consists of additional advanced treatment facilities and the distribution system.

The water recycled by the three units of this project will reduce the need for water importations from Mono Lake/Owens Valley, northern California, and the Colorado River. The project will also decrease the wastewater discharge into the Santa Monica Bay, thereby supplementing efforts to clean up the bay.

Authorization Public Law 102-575, Title XVI, October 30, 1992.

Land certification None required.

Definite plan report None required.

Water Reclamation and Reuse, Los Angeles Area . . . .

Benefit cost ratios as of October 1, 1996	No benefit-cost ratio was required during authorization of the project.
Completion data	As of September 30, 1995, this project is 21 percent complete.

West Basin Water Recycling Project - The project is scheduled for completion in 1999. Program completion is delayed 1 year from that shown in the FY 1996 Budget Justifications due to revised funding schedules.

East Valley Water Reclamation Project - Phase 1 of the project is scheduled for completion in 1998. Phase 2 is scheduled to begin in FY 2001 with completion in 2002. Phase 2 is delayed until results from Phase 1 are available for regulatory agency usage.

Terminal Island Project - The project is scheduled for completion in FY 2000.

Summarized Financial Data

Total Federal obligations			
Reclamation	$ 69,970,000	Allotments to 9/30/95	$14,740,000
Other Federal	- 0 -	Allotments for FY 1996	9,545,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	$24,285,000
Non-Federal participation 1/	209,910,000	Allotments for FY 1997	14,300,000
Total to be allocated	$279,880,000	Balance to complete	$31,385,000

1/ Includes cost sharing of $150,120,000 from the West Basin Municipal Water District for the West Basin Water Recycling Project, and $59,790,000 from the City of Los Angeles for the East Valley Water Reclamation Project and Terminal Island Water Reclamation Project.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Municipal and industrial water	$272,480,000	$279,880,000

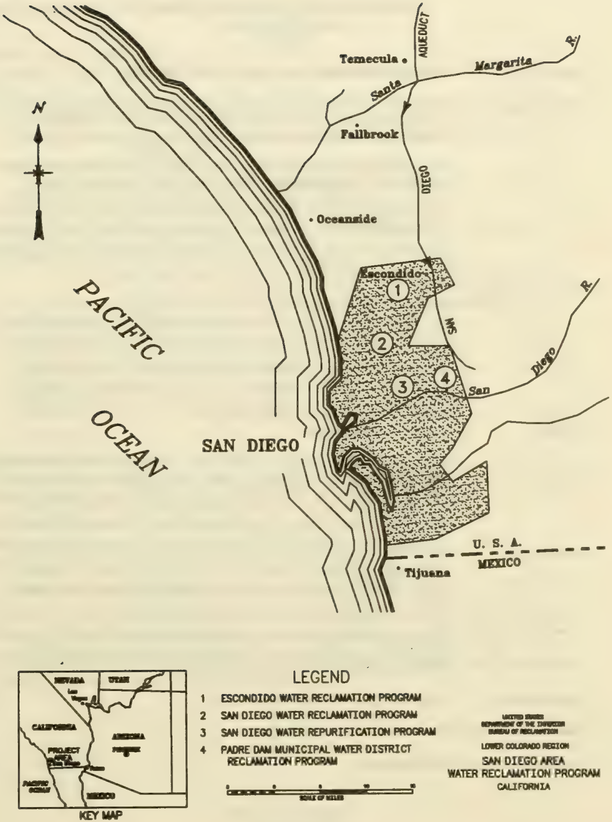
Cost allocation methodology The increase is due to updated construction estimates for Terminal Island.

Project Repayment

Repaid by	Amount
Nonreimbursable 1/	$279,880,000

1/ Includes nonreimbursable costs of $69,970,000 provided by the Federal government as grants, $150,120,000 from the West Basin Municipal Water District, and $59,790,000 from the City of Los Angeles.

Status of repayment contract	A repayment contract will not be required. Grants were awarded to the West Basin Municipal Water District for the West Basin Water Recycling Project and the City of Los Angeles for the East Valley Water Reclamation Project. In FY 1996, a grant is scheduled to be awarded to the City of Los Angeles for the Terminal Island Water Reclamation Project.	
Irrigation investment per acre	Not applicable.	
Status of NEPA compliance	West Basin Water Recycling Project - The Finding of No Significant Impact (FONSI) was completed in February 1994. The State of California's Environmental Quality Act (CEQA) compliance process was completed in July 1991.	
	East Valley Water Reclamation Project - The FONSI was completed in November 1994. The CEQA compliance process was completed in July 1991.	
	Terminal Island Water Reclamation Project - The NEPA is scheduled to be completed by May 1996. The CEQA compliance process was completed in October 1995.	
Other information	Funds were first appropriated for the project in FY 1994. Reclamation will fund 25 percent of the total project costs. Grants for West Basin and East Valley were awarded in FY 1994 and FY 1995, respectively.	
Appropriation ceiling	An appropriation ceiling was not included in the authorizing legislation.	
Work proposed for FY 1997	**West Basin** - Grant work will continue on construction of new recycled water distribution pipelines and extension of existing pipelines. Grant administrative costs will continue.	**$ 11,260,000**
	East Valley - Grant work will continue on construction of the pump station and pipelines to the spreading basins. Grant administrative costs will continue.	**17,120,000**
	Terminal Island - Grant work will continue on designs for additional treatment facilities and the recycled water distribution system. Any remaining preconstruction activities will be completed. Grant administrative costs will continue.	**3,220,000**
	Non-Federal contributions	**- 17,300,000**
	Total request	**$ 14,300,000**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PROJECT AREA
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KEY MAP
LEGEND
1 ESCONDIDO WATER RECLAMATION PROGRAM
2 SAN DIEGO WATER RECLAMATION PROGRAM
3 SAN DIEGO WATER REPURIFICATION PROGRAM
4 PADRE DAM MUNICIPAL WATER DISTRICT RECLAMATION PROGRAM
SCALE OF MILES
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION
SAN DIEGO AREA
WATER RECLAMATION PROGRAM
CALIFORNIA

Water Reclamation And Reuse Program
San Diego Area
California

Location	This project is located in San Diego County, California.
Description	This project consists of four units: San Diego Water Reclamation Project, Escondido Water Reclamation Project, San Diego Water Repurification Project, and Padre Dam Municipal Water District Reclamation Project.

The San Diego Water Reclamation Project is a regional water reclamation program being implemented by the Cities of San Diego and Poway, Sweetwater Authority, Otay Water District, County of San Diego, and Tia Juana Valley County Water District. It includes the construction of five new wastewater treatment plants, and expansion of an existing plant, along with distribution systems. In addition, two conjunctive use projects are included. Total system capacity upon completion will be approximately 29,100 acre-feet per year.

The Escondido Water Reclamation Project is being implemented by the City of Escondido to upgrade its Hale Avenue Resource Recovery Facility (HARRF) from secondary treatment to tertiary treatment. A distribution system that will put the recycled water to beneficial use for nonpotable purposes is also being constructed. In addition, the City of Poway will construct a distribution system and the City of San Diego is planning a conjunctive use project, both of which will use recycled water from the HARRF. When completed, the project will deliver 11,500 acre-feet of recycled water annually.

The San Diego Water Repurification Project is being studied by the City of San Diego and San Diego County Water Authority. They have proposed a concept referred to as a repurification program which would have the effect of indirectly using recycled water for potable purposes. The project is dependent on the approval of the California State Department of Health Services, which has indicated tentative support for the concept. If approval is obtained, the project will result in 20,000 acre-feet of recycled water annually being treated to advanced levels, then pumped to an existing surface reservoir, where the water would enter the City's potable water system.

The Padre Dam Municipal Water District Reclamation Project will upgrade and expand an existing water treatment plant and construct a distribution system that will deliver 2,000 acre-feet of recycled water annually.

Authorization	Public Law 102-575, October 30, 1992.
Land certification	None required.
Definite plan report	None required.

Water Reclamation and Reuse, San Diego Area . . . .

Benefit cost ratios as of October 1, 1996	No benefit-cost ratio was required during authorization of the project.
Completion data	As of September 30, 1995, this project is 2 percent complete. San Diego Water Reclamation Project - The project is scheduled for completion in 2007. Escondido Water Reclamation Project - The project will be complete in 2000. San Diego Water Repurification Project - The project is scheduled for completion in 2000. Padre Dam Municipal Water District Reclamation Project - The project is scheduled for completion in 2001. Project completion delayed 2 years from that shown in the FY 1996 Budget Justifications due to revised funding schedules.

Summarized Financial Data

Total Federal obligations			
Reclamation	$172,590,000	Allotments to 9/30/95	$ 2,875,000
Other Federal		Allotments for FY 1996	2,692,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	$ 5,567,000
Non-Federal participation 1/	517,770,000	Allotments for FY 1997	9,340,000
Adjustment			
Total to be allocated	$690,360,000	Balance to complete	$157,683,000

1/ Includes cost sharing of $325,710,000 from the Cities of San Diego and Poway, Sweetwater Authority, Otay Water District, County of San Diego, and/or Tia Juana Valley County Water District for the San Diego Water Reclamation Project; $90,090,000 from the Cities of Escondido, Poway, and/or San Diego for the Escondido Water Reclamation Project; $83,310,000 from the City of San Diego and/or San Diego County Water Authority for the San Diego Water Repurification Project; and $18,660,000 from Padre Dam Municipal Water District for the Padre Dam Municipal Water District Reclamation Project.

Project Cost Allocation

Allocation	FY 1996 Estimate	FY 1997 Estimate
Municipal and industrial water	$690,360,000	$690,360,000

Cost allocation methodology The methodology of cost allocation has not been modified from last year.

Project Repayment

Repaid by	Amount
Nonreimbursable 1/	$690,360,000

1/ Includes nonreimbursable costs of $172,590,000 provided by the Federal government as grants; $325,710,000 from the Cities of San Diego and Poway, Sweetwater Authority, Otay Water District, County of San Diego, and/or Tia Juana Valley County Water District; $90,090,000 from the Cities of Escondido, Poway, and/or San Diego; $83,310,000 from the City of San Diego and/or San Diego County Water Authority, and $18,660,000 from the Padre Dam Municipal Water District.

Status of repayment contract A repayment contract will not be required. Grants were awarded in FY 1995 to the City of San Diego for preconstruction work on the San Diego Water Reclamation Project, the City of Escondido for the Escondido Water Reclamation Project, and to the City of San Diego for planning studies for the San Diego Water Repurification Project. Grants have been or will be awarded in FY 1996 to the City of San Diego for construction of the North/Central Distribution System, the Tia Juana Valley County Water District for groundwater exploration, the Sweetwater Authority for the Sweetwater Water Reclamation Project (all components of the San Diego Water Reclamation Project), the City of San Diego for planning studies for the San Pasqual Groundwater Management Project (part of the Escondido Water Reclamation Project), and the Padre Dam Municipal Water District for the Padre Dam Municipal Water District Reclamation Project.

Irrigation investment per acre Not applicable.

Status of NEPA compliance San Diego Water Reclamation Project - A categorical exclusion for preconstruction activities was completed in January 1995. A Finding of No Significant Impact (FONSI) was completed in December 1995 and the State of California's Environmental Quality Act (CEQA) compliance process was completed in December 1995 for the North/Central Distribution System. A categorical exclusion for Tia Juana VCWD Groundwater Exploration was completed in January 1995. A FONSI for Sweetwater is scheduled to be completed in March, 1996. CEQA for Sweetwater was completed in 1995.

Escondido Water Reclamation Project - A FONSI was completed in April 1995. The CEQA compliance processes were completed in December 1991 for the water treatment plant modifications and July 1992 for the distribution system. A categorical exclusion for San Pasqual planning study was completed in July 1995.

San Diego Water Repurification Project - A categorical exclusion for the planning studies was completed in January 1995. It has been determined that for compliance with NEPA and CEQA, a joint Environmental Impact Statement/Environmental Impact Report will be prepared. Scheduled completion is September 1997.

Padre Dam Municipal Water District Reclamation Project - The FONSI was completed in May 1995. The CEQA compliance was completed in March 1995.

Other information Reclamation will fund 25 percent of the total project costs.

Appropriation ceiling An appropriation ceiling was not included in the authorizing legislation.

Work proposed for FY 1997

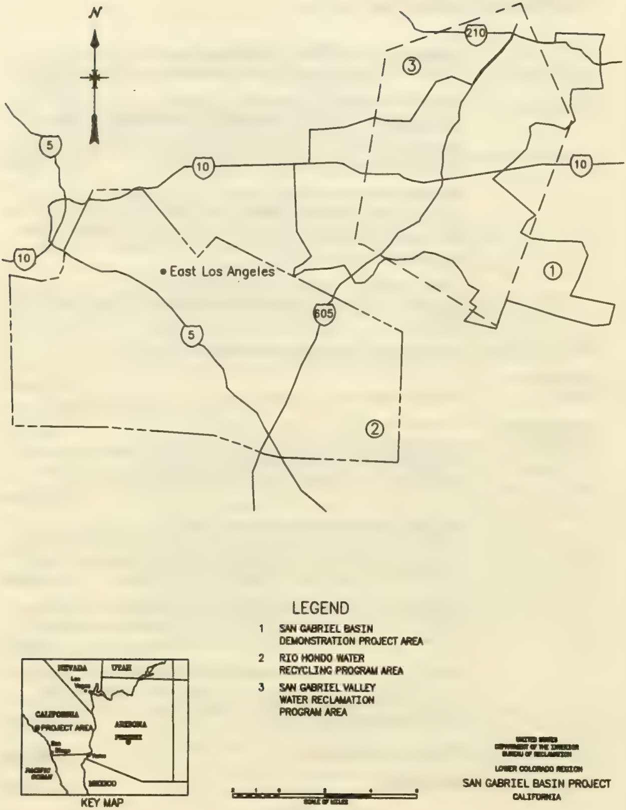
San Diego Water Reclamation Project - Grant work will continue on the design and construction of wastewater treatment plants and reclaimed water distribution systems. Grant administrative costs will continue. **$ 52,875,000**

Escondido Water Reclamation Project - Grant work will continue on the construction of the Hale Avenue Resource Recovery Facility expansion and the design and construction of reclaimed water distribution system and related facilities. Grant administrative costs will continue. **37,500,000**

San Diego Water Repurification Project - Grant work will be initiated for designs and other preconstrution activities. Environmental compliance activities and grant administrative costs will continue. **8,050,000**

Padre Dam Municipal Water District Reclamation Project - Grant work will continue on the construction of the existing water treatment plant expansion and the reclaimed water distribution system. Grant administrative costs will continue. **2,750,000**

Non-Federal contributions	**- 91,835,000**
Total request	**$ 9,340,000**



Construction - 302

Water Reclamation and Reuse Program
San Gabriel Basin Project
California

Location This project is located in the San Gabriel Valley of Los Angeles County, California.

Description This project consists of three units: the San Gabriel Basin Demonstration Project, Rio Hondo Water Recycling Program, and San Gabriel Valley Water Reclamation Program.

The San Gabriel Basin Demonstration Project is a conjunctive use project that extracts groundwater from the Baldwin Park Operating Unit (which is an Environmental Protection Agency superfund site), treats the water to remove the volatile organic compounds, and then delivers the effluent to water districts for distribution and/or groundwater recharge. The components of the project are a well system, conveyance and pumping systems for both influent and effluent, and treatment facilities. Extraction, treatment, and distribution of San Gabriel Basin groundwater will improve the Basin's groundwater quality, increase storage capacity, and expand the Basin's use for regional benefits. The project will pump, treat, and distribute approximately 30,000 acre-feet per year.

The Rio Hondo Water Recycling Program will annually distribute 10,000 acre-feet of recycled water from the San Jose Creek Water Reclamation Plant for landscape irrigation and industrial process water. This use of recycled water will replace the need for a like amount of potable water, thereby lessening the demand on both imported and groundwater resources. By reducing the need for groundwater pumping, this program will assist in the prevention of further migration of contamination from the San Gabriel plume and wastewater discharges to the ocean will be decreased. Components of the program are construction of a main pump station, a booster pump station, reservoir storage facilities (10 million gallons), and approximately 40 miles of pipeline.

The San Gabriel Valley Water Reclamation Program will annually utilize up to 25,000 acre-feet of reclaimed water from the San Jose Creek Water Reclamation Plant to recharge the San Gabriel Valley groundwater basin in order to replace and/or supplement water currently being imported and recharged at the Santa Fe Spreading Grounds. There will be no net change in the amount of water currently being recharged as a result of implementation of this program. Additional facilities will annually allow 6,200 acre-feet of reclaimed water to be used for landscape irrigation and industrial use.

Authorization Public Law 102-575, October 30, 1992, and Public Law 103-126, dated October 28, 1993.

Land certification None required.

Water Reclamation and Reuse, San Gabriel Basin Project ....

Definite plan report	None required.
Benefit cost ratios as of October 1, 1996	No benefit-cost ratio was required during authorization of the project.
Completion data	As of September 30, 1995 this project is 18 percent complete.

San Gabriel Basin Demonstration Project - The construction of this project is scheduled for completion in 1998. Program completion delayed 1 year from that shown in the FY 1996 Budget Justifications due to ongoing negotiations with local entities.

Rio Hondo Water Recycling Program - The program is scheduled to be completed in 2003. Program completion delayed 6 years from that shown in the FY 1996 Budget Justifications. The Central Basin MWD determined that their initial schedule was overly optimistic due to economic considerations, and extended the completion date.

San Gabriel Valley Water Reclamation Program - The project is scheduled for completion in 1999. Program completion delayed 2 years from that shown in the FY 1996 Budget Justifications due to litigation brought on by the Miller Brewing Company.

Summarized Financial Data

Total Federal obligations			
Reclamation	$ 38,090,000	Allotments to 9/30/95	$10,000,000
Other Federal	- 0 -	Allotments for FY 1996	6,403,000
Net property and other transfers			
Federal participation	- 0 -	Allotments to date	$16,403,000
Non-Federal participation 1/	114,270,000	Allotments for FY 1997	5,800,000
Total to be allocated	$152,360,000	Balance to complete	$15,887,000

1/ Includes cost-sharing of $43,590,000 from the San Gabriel Basin Water Quality Authority and Three Valleys Municipal Water District for the San Gabriel Basin Demonstration Project; $48,090,000 from the Central Basin Municipal Water District for the Rio Hondo Water Recycling Program; and $22,590,000 from the Upper San Gabriel Valley Municipal Water District for the San Gabriel Valley Water Reclamation Program.

Project Cost Allocation

Allocation	FY 1996 Estimate	FY 1997 Estimate
Municipal and industrial water	$ 152,360,000	$ 152,360,000

Cost allocation methodology The methodology of cost allocation has not been modified from last year.

Project Repayment

Repaid by	Amount
Nonreimbursable 1/	$152,360,000

1/ Includes nonreimbursable costs of $38,090,000 provided by the Federal government as grants, $43,590,000 from the San Gabriel Basin Water Quality Authority and Three Valleys Municipal Water District, $48,090,000 from the Central Basin Municipal Water District, and $22,590,000 from the Upper San Gabriel Valley Municipal Water District.

Status of repayment contract Repayment contracts will not be required. Grants for preconstruction activities for the San Gabriel Basin Demonstration Project were awarded in September 1994 and February 1996. A grant for preconstruction activities for the San Gabriel Water Reclamation Project was awarded in August 1994. Central Basin Municipal Water District was awarded a grant for the Rio Hondo Water Recycling Program in June 1994. Grants are scheduled for award to the Three Valley Municipal Water District for construction of the San Gabriel Basin Demonstration Project in 1996 and to the Upper San Gabriel Valley Municipal Water District for the construction of the San Gabriel Valley Water Reclamation Program in 1996.

Irrigation investment per acre Not applicable.

Status of NEPA compliance San Gabriel Basin Demonstration Project - Categorical exclusions for preconstruction activities were completed in September 1994 and January 1996. NEPA compliance is scheduled to be completed in April 1996. The State of California's Environmental Quality Act (CEQA) compliance process is scheduled to be completed in March 1996.

Rio Hondo Water Recycling Program - Finding of No Significant Impact (FONSI) was completed in June 1994. The CEQA compliance process has been completed.

San Gabriel Valley Water Reclamation Program - A categorical exclusion for preconstruction activities was completed in April 1994. NEPA compliance for the actual construction is scheduled to be completed in October 1996, provided that an Environmental Impact Statement (EIS) is not required. The CEQA compliance process was completed in August

1994, but has subsequently been invalidated by a court. CEQA compliance is now scheduled for completion in October 1996.

Other information Reclamation will fund 25 percent of the total project costs. Funds were first appropriated for the project in FY 1994.

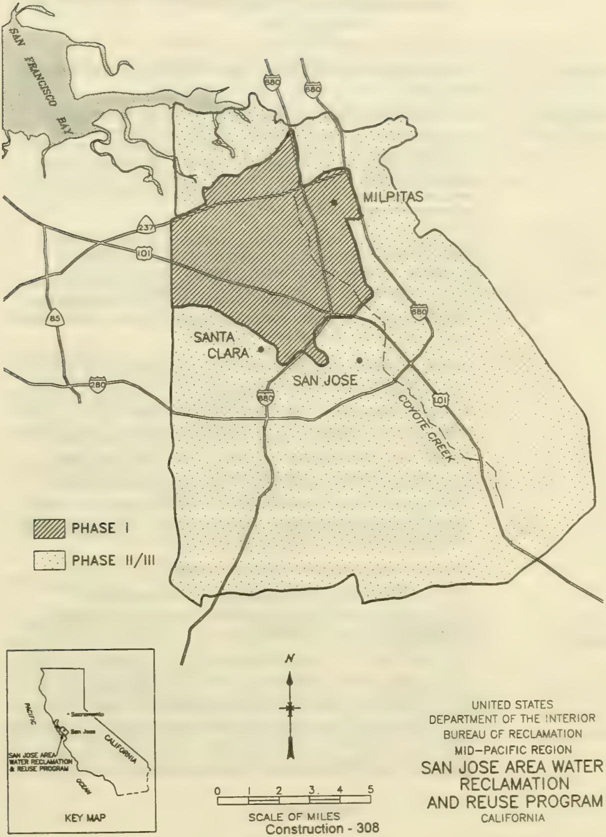
Since the San Gabriel Basin Demonstration Project involves the cleanup of a superfund site, it has required extensive negotiations with state, Federal, and local entities, including EPA and those firms identified as Potentially Responsible Parties under the superfund process. The negotiations involve all aspects of the project, including design details, cost allocations, schedules, and responsibilities. In 1996, it was agreed that the Three Valleys Municipal Water District will become the prime sponsor of the project, succeeding the San Gabriel Basin Water Quality Authority. The District will be responsible for constructing and then operating the project.

The Miller Brewing Company, which owns a major brewery located near the Santa Fe Spreading Grounds, filed two lawsuits against the Upper San Gabriel Valley Municipal Water District challenging the San Gabriel Valley Water Reclamation Program, claiming the project endangers public health. Reclamation is not involved in the litigation. The first lawsuit was decided in favor of the District. The second lawsuit, however, resulted in the judge invalidating the Environmental Impact Report for the project. The District is appealing that decision. This litigation has delayed the project for at least 2 years. A tentative settlement agreement has been reached allowing the project to proceed.

Appropriation ceiling An appropriation ceiling was not included in the authorizing legislation.

Work proposed for FY 1997

San Gabriel Basin Demonstration Project - Grant work will continue on the construction of wells, conveyance and pumping systems, and treatment plants. Grant administrative costs will continue.	**$ 20,040,000**
Rio Hondo Water Recycling Program - Grant work will continue on the construction of pipelines to deliver recycled water to various communities. Grant administrative costs will continue.	**6,818,000**
San Gabriel Valley Water Reclamation Program - Grant work will continue on the construction of pumps and pipelines. Grant administrative costs will continue.	**6,010,000**
Non-Federal contributions	**- 27,068,000**
Total request	**$ 5,800,000**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BUREAU OF RECLAMATION
MID-PACIFIC REGION
SAN JOSE AREA WATER RECLAMATION AND REUSE PROGRAM
CALIFORNIA

Water Reclamation and Reuse Program
San Jose Area
California

Location This program encompasses the San Jose, California, metropolitan service area.

Description This is a regional program for the planning, design, and construction of demonstration and permanent facilities to reclaim and/or reuse up to 37,000 acre-feet per year of waste water treatment plant effluent, primarily for irrigation in the Santa Clara Valley, California. The project includes construction of 400 miles of pipe over a 150-square-mile area in six cities to bring reclaimed water to more than 2,000 identified customers for use in landscape and agricultural irrigation.

The project will enable the city of San Jose to meet federally mandated water quality standards, and to reduce pressure on area surface and groundwater supplies. The project is required by the Environmental Protection Agency to prevent conversion of endangered salt marsh habitat by fresh water effluent entering San Francisco Bay. The project will also reduce the discharge of trace level pollutants, and provide a reliable source of non-potable water to offset potable demands.

The San Jose/Santa Clara Water Pollution Control Plant (Plant) is a jointly-owned regional wastewater treatment plant operated by the City of San Jose. The Plant serves over 1.2 million residents, businesses, and industry in the Santa Clara Valley. The Plant currently discharges about 120 million gallons per day of highly purified effluent into an estuary at the southern end of San Francisco Bay. Treated effluent from the Plant has been recycled on a limited basis for many years. In 1978 the Plant added advanced processes to further treat the effluent, including additional filtration and disinfection. Since then, a small percent of flow (up to 5 million gallons per day) has been recycled for cooling water and irrigation of plant landscaping. Facilities were upgraded further in 1986, improving the reliability of the Plant to produce a high quality effluent suitable for reuse.

Large-scale water reclamation efforts were brought to the forefront in January 1989, with the finding by the Environmental Protection Agency and the San Francisco Regional Water Quality Control Board that the environment adjacent to the plant had been degraded by plant effluent. Federal and State regulators determined that the freshwater discharged from the Plant had reduced the salinity of nearby salt marsh, converting it to freshwater marsh and threatening the habitat of two endangered species (the salt marsh harvest mouse and the California clapper rail). Despite the fact that plant effluent is treated nearly to drinking water standards, the Environmental Protection Agency and Regional Board ordered San Jose to divert flows over 120 million gallons per day from the South Bay to prevent further marsh conversion. As the treatment plant was designed to treat up to 167 million gallons per day of wastewater, approximately 50 million gallons per day must be diverted for the plant to operate at full capacity. In

September 1991, the city adopted an action plan to address the issue of marsh conversion. The planned reuse (through Phase II) of 50 million gallons per day of plant flow at a combined estimated cost of $481 million will allow the plant to operate at capacity while preventing further marsh conversion, and reducing the mass of trace metals discharged to the Bay. Another significant benefit of regional water reclamation was made clear during the recent six-year drought, when cities throughout California looked to ease the water shortage by exploiting local supplies. Area cities developed demand for reclaimed water by passing drought-control ordinances prohibiting the use of drinking water for dust control and construction.

Although heavy rains officially ended the six-year drought in 1993, the ban remains in effect. Since 1989, the city has dispensed more that 300 million gallons for construction purposes, and an additional 1 million gallons per day has been piped to a nearby golf course for irrigation. When completed, the proposed project will offset summer demand for drinking water by up to 70 million gallons per day, by providing an appropriate substitute for industrial process, agricultural use and landscape irrigation.

Authorization Public Law 102-575, the Reclamation Projects Authorization and Adjustment Act of 1992, Title XVI, Section 1607, October 30, 1992.

Land certification Not applicable.

Definite plan report Not applicable.

Benefit cost ratio as of October 1, 1996 Benefit-cost ratios are not required for activities authorized under Public Law 102-575.

Completion data San Jose Area Water Reclamation and Reuse Program, Phase I, is scheduled for completion in November, 1997.

Summarized Financial Data

Total Federal obligations	$109,959,000	Allotments to 9/30/95	$1,714,253
		Allotments for FY 1996	1,450,000
Net property and other transfers			
Federal participation		Allotments to date	$3,164,253
Non-Federal participation 1/	371,000,000	Allotments for FY 1997	2,760,000
Total to be allocated	$480,959,000	Balance to complete	$104,034,747

1/ Non-cash contributions by San Jose and Santa Clara Valley Water District.

Project Cost Allocation

Allocation	FY 1996 estimate	FY 1997 estimate
Water Conservation	$450,000,000	$480,959,000
Total	$450,000,000	$480,959,000

Cost allocation methodology Changes in the cost allocation are the result of changes in the total estimated cost of this program.

The increase in total cost to be allocated of $30,959,000 includes $31,005,199 for Phase I Grant (Golden Triangle), and $954,133 for re-evaluation of contingency requirements; partially offset by a decrease of $1,000,000 in the Phase II grant and $332 for rounding.

Project Repayment

Repaid by	Amount
Local Non-Federal entities 1/	$371,000,000
Nonreimbursable	109,959,000
Total	$480,959,000

1/ Non-cash contribution by San Jose and Santa Clara Valley Water District.

Status of repayment contract Not applicable.

Irrigation investment per acre Not applicable.

Status of NEPA compliance Ongoing.

Appropriation ceiling Not applicable.

Other Information The Golden Triangle is a 30 square mile area at the intersection of San Jose, Santa Clara, and Milpitas, with over 3,000 irrigable acres, including high-tech business parks, schools and a golf course. Phase I of the project will reuse 9,000 acre-feet per year in this thirty square mile area. The project involves construction of 100 miles of recycled water pipe. This phase is estimated to cost $161 million and will provide peak diversion of about 20 million gallons per day.

Water Reclamation and Reuse Program, San Jose Area . . . .

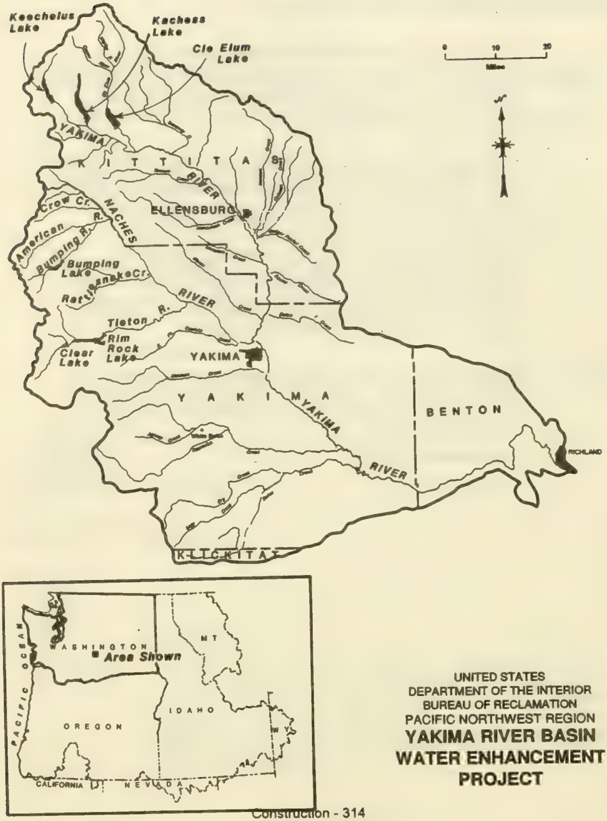
The Phase I facility plan was completed in 1993, along with the Environmental Impact Report for construction of water reclamation facilities in the Golden Triangle area. A workshop was held with local water retailers and other agencies in December 1993 to determine optimum pipeline alignments in the expanded area for the purposes of facility design and budget development.

A Resource Partnership was established involving local water retailers, the Santa Clara Valley Water District, and the Montgomery Watson consulting team. This partnership will combine experience and commitment to resolve the complex institutional, financial, and engineering issues as they arise during design, construction and implementation of the program.

Phase II will begin construction upon completion of Phase I. Upon completion, this phase is required to reuse up to 50 million gallons of water per day. Phase II will expand the non-potable water distribution system to serve the entire 150 square mile service area identified in the Expanded Area Facility Plan. Phase II will require construction of an additional 300 miles of pipe to supply up to 36,000 acre feet per year.

Work proposed for FY 1997

San Jose Area Water Reclamation and Reuse Program. (Public Law 102-575, Section 1607.) Phase I of this grant, which began in 1994, will continue with the construction of nearly 100 miles of distribution pipeline and a pump station.	**$88,760,000**
Non-Federal Participation	**- 86,000,000**
Total request	**$2,760,000**



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION

YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT

Yakima River Basin Water Enhancement Project
Washington

Location	Yakima River basin is in south-central Washington on the east side of the Cascade Range and includes most of Yakima, Kittitas, and Benton Counties.
Description	Phase II will evaluate and implement structural and nonstructural water conservation measures to increase the reliability of the irrigation supply and enhance streamflows. Tribal water supply facilities will be improved and will enhance tribal economic, fish, wildlife, and cultural programs.
Authorization	Public Law 103-434, October 31, 1994
Land certification	None required.
Definite plan report	None required.
Benefit cost ratio as of October 1, 1996	Not applicable since benefits are intangible.
Completion date	Completion date has not yet been determined.

Summarized Financial Data

Total Federal obligations			
Reclamation	$150,327,000	Allotments to 9/30/95	$ 386,168
Other Federal	- 0 -	Allotments for FY 1996	1,500,000
Net property and other transfers			
Federal participation		Allotments to date	1,886,168
Non-Federal participation 1/	42,145,719	Allotments for FY 1997	4,475,000
Adjustments	- 0 -		
Total to be allocated	$192,472,719	Balance to complete	$143,965,832

1/ Non-Federal contributions by state and local interests, $42,145,719

Project Cost

Allocation	FY 1996 Estimate	FY 1997 Estimate 1/
Fish and wildlife	NA	$192,472,719
Total		$192,472,719

1/ Includes various study investigation costs, and NEPA compliance costs as authorized by Public Law 103-434.

Yakima River Basin . . . .

Project Repayment 1/

Repaid By	Amount
Non-Federal contributions (State of Washington and local entities)	$ 42,145,719
Non-reimbursable	150,327,000
Total	$192,472,719

1/ In the absence of advance planning studies, the allocation of costs and repayment information is based on preliminary level information.

Status of repayment contracts None required.

Status of NEPA compliance A programmatic environmental impact statement will be prepared to evaluate the basin-wide environmental impacts/benefits of the water enhancement facilities.

Appropriation ceiling Appropriations authorized for Phase II, water enhancement facilities, are $161,628,000 (October 1996). This authorization is adequate to cover the project as currently proposed.

Work proposed for FY 1997 **Water Conservation Plans** - Technical assistance and grants to entities participating in the Basin Conservation Program, will be continued for the preparation of water conservation plans. The State of Washington and individual entities are providing 50 percent funding for this activity **$ 200,000**

Implementation/Grants - Technical assistance and grants will begin and will be provided to implement specific measures identified in entities' water conservation plans that are determined feasible. Cost-sharing will be provided by the State of Washington and individual entities. **$ 769,000**

Feasibility Studies - Grants to entities that have completed conservation plans to determine the feasibility of conservation project will continue. State of Washington and individual entities are providing like funding for this activity. **$ 260,000**

Water Acquisition - Purchasing or leasing water or water rights from entities to limit or forego water use on a temporary or permanent basis to increase instream flows will continue. **$ 400,000**

Conservation Advisory Group - Work will continue on the Basin Conservation Plan. The plan will provide the structure and mechanism for implementing water conservation measures found in the various water conservation plans developed by individual entities participating in the Basin Conservation Program. **$ 100,000**

Toppenish Creek Corridor - Investigations of measures to develop an integrated management program to meet tribal objectives for agricultural, fish, wildlife and cultural resources will continue. **$ 195,000**

Lake Cle Elum - Designs, specifications and NEPA compliance activities will continue on the proposed radial gate modifications, shoreline protection, and fish passage facilities at Cle Elum Dam and Lake. **$ 100,000**

Chandler Pumping Plant Electrification - Designs, specifications and NEPA compliance activities will continue for the electrification project. **$ 200,000**

Kachess Conveyance Facilities - The feasibility of conveying water in excess of system demands from Cabin Creek and Silver Creek will continue to be studied. Analysis of benefits, costs and environmental compliance will continue. **$ 100,000**

Kachess Dam Modifications - Modifications to the discharge outlet facilities to improve reservoir operations will be completed. **$1,650,000**

Tributary Program - The investigation and implementation of measures necessary to enhance water supplies for fish, wildlife, and irrigation on tributaries to the Yakima River will continue. **$ 100,000**

Wapato Improvements - Activities necessary for the proposed system improvements to the Wapato Irrigation Project will continue. This includes investigations and designs, cost estimates, specifications and grants for existing system improvements. Work will be coordinated with the Bureau of Indian Affairs and the Yakama Indian Nation. **$ 600,000**

NEPA Compliance - Work will continue on the preparation of a programmatic environmental impact statement that will evaluate the basin-wide environmental impacts/benefits of the Yakima River Basin Water Enhancement Project. **$ 300,000**

Non-Federal contributions **$ - 499,000**

Total request **$4,475,000**

REHABILITATION AND BETTERMENT

OF EXISTING PROJECTS

REHABILITATION AND BETTERMENT OF EXISTING PROJECTS

On existing older projects, some of the structures have exceeded their useful life; and in the long run, replacement is more economical than continuing extensive repairs. The deteriorated facilities result in inefficient use or loss of water. Needed repairs in most instances are beyond the ability of the water user to finance on a current year basis. In addition, there have been many changes in land use, methods of irrigation, and types of crops raised. Therefore, to place these older projects on a basis comparable to those now being constructed, the facilities not only need to be rehabilitated but also improved.

The Act of October 7, 1949, as amended, which is the basic authorizing legislation for the rehabilitation and betterment program, requires execution of contracts for the repayment of the cost of the rehabilitation and betterment work allocated to reimbursable functions.

The annual rate of payment is based on the finding of the Secretary of the Interior as to the ability of the user to pay after giving due consideration to any other outstanding repayment obligations.

During FY 1997, rehabilitation and betterment work will continue on two projects.

Summarized Financial Data

Rehabilitation and Betterment	Enacted FY 1996	Request FY 1997
Allotment	$3,249,000	$3,159,000
Application of prior year funds	54,000	- 0 -
Non-Federal cash	3,924,000	152,000
Non-Federal noncash	1,300,000	1,200,000
Total program	$8,527,000	$4,511,000

Shoshone Project
Wyoming

Location This project is located in northwestern Wyoming.

Description The Shoshone Project is made up of four irrigation districts (Shoshone, Deaver, Willwood, and Heart Mountain) that serve approximately 93,000 acres. The facilities were constructed from 1917-1947 and are in need of rehabilitation or replacement. Work will continue on the conversion of canals to pipe for all but the larger supply canals. Also rehabilitation of farm turnout water-measurement devices and lining of larger canals will continue.

FY 1996 allotment	$1,300,000	FY 1997 request	$1,459,000
Non-Federal noncash	1,300,000	Non-Federal noncash	1,200,000
FY 1996 total program	$2,600,000	FY 1997 total program	$2,659,000

Weber Basin Project
Utah

Location This project is located in northcentral Utah in Davis, Morgan, Summit, Wasatch, and Weber Counties.

Description Rehabilitation work performed by the water users will continue on Gateway Canal, Willard Laterals, Arthur Watkins Dam, and water supply wells.

FY 1996 allotment	$ 974,000	FY 1997 request	$1,700,000
Prior Year Funds	46,000		
Non-Federal non-cash	2,057,000	Non-Federal non-cash	152,000
FY 1996 total program	$3,077,000	FY 1997 total program	$1,852,000

DRAINAGE AND MINOR CONSTRUCTION PROGRAM

DRAINAGE AND MINOR CONSTRUCTION PROGRAM

The drainage and minor construction program consists mostly of minor completion work on projects for which major construction is completed. Activities in this category include drainage work, minor repairs, modification work, miscellaneous finishing activities, construction of minimum basic health and safety facilities around existing reservoirs, preconstruction on temporarily deferred facilities, and investigations for settlement of claims.

A program of investigation and construction of recreation facilities under Title 28 of Public Law 102-575 is included.

The FY 1997 program involves activity on 18 ongoing projects, which include 2 units of the Pick-Sloan Missouri Basin Program; cost sharing with non-Federal management entities on the development, rehabilitation, and management of recreational areas and facilities; and the Wetlands Development Program.

Summarized Financial Data

Drainage and Minor Construction	Enacted FY 1996	Request FY 1997
Allotment	$26,530,000	$27,253,000
Application prior year funds	4,064,709	- 0 -
Non-Federal cash	7,420,000	7,817,000
Non-Federal noncash	2,779,000	5,692,000
Other Federal participation	867,939	- 0 -
Total program	$41,661,648	$40,762,000

Boise Project
Idaho

Location The project is located in southwestern Idaho.

Description Acquisition of agricultural easements and land exchanges, where feasible, will be completed. In addition, work will be completed on a series of water quality projects to assist state, county and others to develop and implement Best Management Practices within the watershed; and assist in evaluation of irrigation systems on adjacent lands. Non-Federal cost-sharing of 60 percent will be provided through Memorandum of Agreement with the State of Idaho.

FY 1996 allotment	$ 510,000	FY 1997 request	$200,000
Non-Federal noncash	765,000	Non-Federal noncash	300,000
FY 1996 Total Program	$1,275,000	FY 1997 Total Program	$500,000

Brantley Project
New Mexico

Location This project is located in southeastern New Mexico on the Pecos River in Eddy County.

Description Funds provide for waterfowl mitigation activities on the 300-acre waterfowl ponds of the Karr Farm near Artesia, New Mexico, and 640 acres of waterfowl feed on the Seven Rivers Farm adjacent to Brantley Reservoir.

FY 1996 allotment	$600,000	FY 1997 request	$700,000
Prior year funds	53,000		
FY 1996 total program	$653,000		

Drainage and Minor Construction . . . .

Colorado River Front Work and Levee System

Arizona, California, Nevada

Location This project is located in Mohave, La Paz, and Yuma Counties in western Arizona; Riverside, San Bernardino, and Imperial Counties in southeastern California; and Clark County in southern Nevada.

Description Work includes placement of river mile markers denoting floodway boundary elevations at cross sectioning stations; armoring the Gila River levees to protect federal facilities, state and private property, recreational facilities, and the Gila conveyance channel will begin. Contracts to correct the undersized and inadequate existing Yuma valley drainage system will continue.

FY 1996 allotment	$1,800,000	FY 1997 request	$2,100,000
Prior year funds	605,105		
FY 1996 total program	$2,405,105		

Colorado River Storage Project
Dallas Creek Project

Colorado

Location This project is located in Ouray County in southwestern Colorado.

Description Complete repair work of the severely damaged concrete in the outlet works stilling basin of the Ridgway Dam and Reservoir.

FY 1996 allotment	$270,000	FY 1997 request	$300,000
Prior year funds	155,000		
FY 1996 total program	$425,000		

Klamath Project
California, Oregon

Location This project is located on the Oregon-California border in Oregon's Klamath County and California's Siskiyou and Modoc Counties.

Description As a result of the biological opinion for long-term operation of the Klamath Project, released by the U.S. Fish and Wildlife Service on July 22, 1992, the Bureau of Reclamation will continue to direct funds to comply with the findings. These findings include scientific studies and any project reoperations associated with mitigating the effect of the project operations on Federally listed threatened and endangered species, specifically the Lost River and Short Nose suckers, the bald eagle, and the salmon in the Klamath River, which are candidates for listing under the Endangered Species Act.

Work Continuing Fish Passage Studies on the Main Division, the rehabilitation of sumps 2 and 3 for the Tulelake Division and miscellaneous Interagency and cooperative agreements on Klamath Basin rehabilitation program will continue.

FY 1996 program	$2,318,000	FY 1997 request	$2,245,000

Drainage and Minor Construction . . . .

Lake Meredith Salinity Control Project

New Mexico, Texas

Location This project is located in northwestern Texas and northeastern New Mexico.

Description The Canadian River Project was constructed by the Bureau of Reclamation in the mid-1960's to supply municipal and industrial water to the 11 member cities in the Canadian River Authority. The water quality in Lake Meredith has steadily declined since impoundment began in 1964 due primarily to artesian leakage from a shallow brine aquifer located in northwestern New Mexico. The project consists of drilling shallow production wells into the brine-filled aquifer to reduce artesian pressure and disposing of the brine by deep well injection into a suitable geologic formation approximately 5,000 feet deep. The Bureau's role will be limited to design preparation and construction management. The Canadian River Authority is responsible for other work on the project.

Construction of the project including production and injection wells will be completed in FY 1997.

FY 1996 allotment	$ 570,000	FY 1997 request	$ 100,000
Prior year funds	676,000		
Non-Federal cash	2,220,000	Non-Federal cash	4,780,000
FY 1996 total program	$3,446,000	FY 1997 total program	$4,880,000

Leadville/Arkansas River Recovery Project
Colorado

Location This project is located in Chaffee, Custer, El Paso, Fremont, Lake, Park, Pueblo, Saguache, and Teller Counties of central Colorado in the Upper Arkansas River Basin.

Description A variety of activities have occurred that affect water quality in the Upper Arkansas River Basin and which may affect fish and wildlife resources. Pueblo Reservoir, a feature of the Fryingpan-Arkansas Project, has the potential for becoming a sink for heavy metals as sediments accumulate. Reduction of upstream contaminant loading will help to protect the project water supply and may improve fish and wildlife resources. The authorizing legislation allows Reclamation, in cooperation with others, to proceed with studies of water pollution sources and impacts attributed to mining and other development in the Upper Arkansas River Basin, to develop corrective action plans, and to implement a fish and wildlife restoration program and water quality corrective action demonstration projects. Reclamation is collaborating with other Federal and State agencies to formulate the plans to comply with the legislation. Work will continue on the restoration program and construction of corrective action demonstration projects. These two activities are authorized by Public Law 102-575, Title VII, Sections 707 and 708.

FY 1996 allotment	$530,000	FY 1997 request	$650,000
Prior year funds	104,000		
Non-Federal non-cash	100,000	Non-Federal non-cash	200,000
FY 1996 total program	$734,000	FY 1997 total program	$850,000

Mountain Park Project
Oklahoma

Location This project is located in Kiowa County in southeastern Oklahoma.

Description The contract for a cathodic protection system to inhibit corrosion of the Altus-Snyder Aqueducts will be completed.

FY 1996 allotment	$660,000	FY 1997 request	$1,700,000
Prior year funds	203,000		
FY 1996 total program	$863,000		

Drainage and Minor Construction . . . .

Newlands Project
California, Nevada

Location This project is located in the Lower Carson River Basin near Fallon in western Nevada in the Counties of Churchill, Washoe, Storey, and Lyon and in northern California in Placer County.

Description Continued implementation of Public Law 101-618, the Fallon Paiute Shoshone Indian Tribe Water Rights Settlement Act of 1990 and Truckee-Carson Pyramid Lake Water Rights Settlement Act.

Work continuing Work will continue on the Operating Criteria and Procedures for the Negotiated Settlement Project. Continuation of work on the Operating Criteria and Procedures under Section 209 of the Fallon Settlement. As part of Section 206 of the Pyramid Lake Settlement, the purchase of water rights for the restoration and maintenance of Lahontan valley wetlands will continue. Also under Section 206 continuation of the Carson Lake Pasture Transfer area for use by the state as a state wildlife refuge and the purchase of replacement water for rural supply will continue. As part of Section 207 of the Fallon Settlement, the rehabilitation of Marble Bluff Dam will continue.

FY 1996 program	$6,961,000	FY 1997 request	$6,550,000
Prior year funds	2,000		
Other Federal contributions	867,939		
FY 1996 total program	$7,830,939		

Pick-Sloan Missouri Basin Program
North Loup Division
Nebraska

Location This division is located in central Nebraska along the North Loup and Loup Rivers. Diversion facilities are located in Loup and Garfield Counties, and the irrigable lands are located in Valley, Greeley, Howard, Merrick, and Nance Counties.

Description The FY 1997 request provides for completion of the project. This includes completion of construction contract administration, final inspection for transferring project facilities from construction to operation and maintenance, and completion of minor work items.

FY 1996 allotment	$ 900,000	FY 1997 request	$900,000
Prior year funds	178,000		
FY 1996 total program	$1,078,000		

Pick-Sloan Missouri Basin Program
Oahe Unit
South Dakota

Location This project is located in Sully, Hughes, Spink, and Beadle Counties of northeastern South Dakota.

Description Maintenance will continue on Oahe Pumping Plant and Reaches 1A and 1B of Pierre Canal. Site security and land management will continue on existing facilities and Blunt Reservoir lands.

FY 1996 allotment	$80,000	FY 1997 request	$85,000

Drainage and Minor Construction . . . .

Reclamation Recreation Management Act - Title XXVIII
Includes Previous Project
"Recreation Facilities at Existing Reservoirs"
Various States

Location Various locations in the 17 Western States.

Description Recreation is authorized under various public laws including the Federal Water Project Recreation Act of 1965 (Public Law 89-72). In 1992, the Reclamation Projects Authorization and Adjustment Act (Public Law 102-575) was enacted. Title 28 of the Act, known as the Reclamation Recreation Management Act, amended Public Law 89-72 to remove certain restrictions and to strengthen Reclamation's authority to develop and manage recreation areas and facilities. The Act permits Reclamation to cost-share with non-Federal management entities on the development, rehabilitation, and management of recreation areas and facilities. A proposed Reclamation policy for implementation of the recreation cost-sharing authorities for work under Title 28 has been developed to better provide opportunities for public outdoor recreation in partnership with non-Federal agencies.

Funds will be used to identify facilities throughout the 17 Western States that do not meet current recreational standards, prepare plans for development, prepare site-specific design documents, and construct recreation facilities in accordance with agreements with non-Federal cost-sharing partner(s). Reclamation will seek non-Federal cost-sharing as new work is identified for recreation development, modification or expansion.

FY 1997 funds will provide for the rehabilitation, renovation, and expansion of recreation facilities including items such as handicap-accessible restroom construction, fishing and boating access, access roads, day use and overnight (camping) facilities, etc.

FY 1996 allotment	$3,297,000	FY 1997 request	$3,515,000
Prior year funds	906,389		
Non-Federal cash	3,500,000	Non-Federal cash	512,000
Non-Federal non-cash	45,000	Non-Federal non-cash	2,882,000
FY 1996 total program	$7,748,389	FY 1996 total program	$6,909,000

Rio Grande Project
New Mexico, Texas

Location This project is located in southwestern New Mexico and western Texas.

Description Funds provide for completion of corrective measures/actions concerning urgent public health problems on open Rio Grande Project agricultural drains situated in the Lower Valley colonias in El Paso County, Texas. This project was funded out of Emergency Funds in FY 1995.

FY 1996 allotment	$ - 0 -	FY 1997 request	$1,000,000
Prior year funds	930,689		
FY 1996 total program	$930,689		

San Luis Valley Project, Closed Basin Division
Colorado

Location This project is located in south-central Colorado.

Description Funds will provide for completion of the mitigation requirements on the project. No further construction funding will be requested after FY 1997.

FY 1996 allotment	$ - 0 -	FY 1997 request	$400,000
Prior year funds	90,000		
FY 1996 total program	$90,000		

Tres Rios Wetlands Demonstration
Arizona

Location This project is located near the city of Phoenix, Maricopa County, Arizona near the confluence of the Salt, Agua Fria and Gila Rivers.

Description This constructed wetlands project will provide technical and scientific data for developing design information, concepts, and operating criteria for large-scale constructed wetlands. Construction of the demonstration wetlands, completed in 1995, will also provide preliminary data to be utilized by the proposed Phoenix Metropolitan Water Reclamation/Reuse Project under the authority of Section 1608 of Public Law 102-575. This demonstration project will continue the program to research wetlands potential for improving the quality of wastewater treatment plant flows to the Salt and Gila River systems; the effects of wetlands relative to consumptive use of water; nutrient and water-borne pathogen removal; creation of wildlife habitat; and as a recreational/education resource. This project will enhance Reclamation's expertise in evaluating the use of constructed wetlands as one strategy for dealing with comprehensive water resource management issues.

The annual program for the demonstration wetland will include management of the wetland system, research, ecologic, and public use monitoring, data management and analysis, hydrologic sampling, and report preparation. In addition work will be completed on the NEPA compliance, cost estimates and schedules for the Phoenix Metropolitan Water project.

FY 1996 allotment	$ 500,000	FY 1997 request	$ 500,000
Prior year funds	6,301		
Non-Federal non-cash	1,000,000	Non-Federal non-cash	1,000,000
FY 1996 total program	$1,506,301	FY 1997 total program	$1,500,000

Velarde Community Ditch Project
New Mexico

Location This project is located in northcentral New Mexico on the Rio Grande River in Rio Arriba County.

Description Funds provide for continuing lining and replacement of existing ditches and canals.

FY 1996 allotment	$1,500,000	FY 1997 request	$2,000,000
Prior year funds	12,000		
FY 1996 total program	$1,512,000		

Wetlands Development
Various States

Location The organizations in Denver and various States in the Pacific Northwest, Lower Colorado, Mid-Pacific, and Great Plains Regions.

Description The Wetlands Development program is authorized under the Reclamation Act of 1902; the North American Wetlands Conservation Act, Public Law 101-233; and various other public laws. Funds will be used to complete final reports on wetland program activities including a general wetlands resource inventory on 8.5 million acres of Reclamation land; design criteria and strategies for development of wetland ecosystems within a watershed for water quality, wildlife habitat, and aesthetic purposes; and monitor activities at the research and demonstration areas.

FY1996 provides for completion of one wetland site in Idaho, award of three contracts in Washington, and design of future wetland sites. Wetland coordinators will continue to develop partnerships and identify opportunities for wildlife habitat development, per various National Memorandums of Agreement.

In addition, the Great Plains Region will continue to construct wetland impoundments and nesting islands; enhance riparian habitat; and develop wetlands on Tribal lands.

FY 1996 allotment	$4,724,000	FY 1997 request	$3,938,000
Prior Year Funds	373,131		
Non-Federal cash	200,000	Non-Federal cash	800,000
Non-Federal noncash	869,000	Non-Federal noncash	1,310,000
FY 1996 total program	$6,166,131	FY 1997 total program	$6,048,000

Drainage and Minor Construction . . . .

Yakima Fish Passage and Protective Facilities
Washington

Location The facilities are located on the Yakima Project in south central Washington.

Description The Federal portion of construction will complete with the Yakima - Tieton fish screen and ladder.

FY 1996	$1,210,000	FY 1997 request	$ 370,000
Non-Federal cash	1,500,000	Non-Federal cash	1,725,000
FY 1996 total program	$2,710,000	FY 1997 total program	$2,095,000

CONSTRUCTION PROGRAM
SCHEDULE OF DRAINAGE AND MINOR CONSTRUCTION PROJECTS
FISCAL YEAR 1996 AND 1997

03/19/96

PROGRAM ITEM | ESTIMATED TOTAL | TOTAL TO SEPTEMBER 30 1995 | FY 1996 PROGRAM | FY 1997 PROGRAM | BALANCE TO COMPLETE

CONSTRUCTION PROGRAM
SCHEDULE OF DRAINAGE AND MINOR CONSTRUCTION PROJECTS
FISCAL YEAR 1996 AND 1997

03/19/96

PROGRAM ITEM	ESTIMATED TOTAL	TOTAL TO SEPTEMBER 30 1995	FY 1996 PROGRAM	FY 1997 PROGRAM	BALANCE TO COMPLETE
BOISE PROJECT	35,196,111	34,486,111	510,000	200,000	
BOSTWICK DIVISION, P-SMBP	57,127,890	57,077,890	50,000		
BRANTLEY PROJECT	198,702,613	143,968,733	653,000	700,000	53,380,880
CHIEF JOSEPH, OROVILLE-TONASKET	89,576,000	87,906,573	200,000		1,469,427
COL RIVER FRNT WK LEVEE SYS	183,158,000	85,903,060	2,405,105	2,100,000	92,749,835
DALLAS CREEK PROJECT (CRSPP)	121,631,460	120,906,460	425,000	300,000	
EAST BENCH UNIT, P-SMBP	23,303,670	23,279,670	24,000		
FARWELL UNIT, P-SMBP	45,332,952	45,299,952	33,000		
HEADGATE ROCK HYDROELECTRIC PROJE	57,417,876	57,088,565	329,311		
HUNGRY HORSE SELECTIVE WITHDRAWAL	7,903,016	7,684,016	219,000		
KLAMATH PROJECT	62,925,000	51,936,301	2,318,000	2,245,000	6,425,699
LAKE MEREDITH SALINITY CONTROL PROJE	3,500,000	1,673,345	1,246,000	100,000	480,655
LEAVILLE/ARKANSAS RIVER RECOVERY	21,194,899	17,920,899	674,000	650,000	1,950,000
LOWER COLORADO WATER SUPPLY PROJ	650,124	639,652	10,472		
MC GEE CREEK PROJECT	120,112,002	119,955,002	157,000		
MINIDOKA PROJECT	4,123,611	4,090,611	33,000		
MOUNTAIN PARK PROJECT	45,459,006	42,896,006	863,000	1,700,000	
NEWLANDS PROJECT	73,143,000	15,250,941	6,963,000	6,550,000	44,379,059
NORTH LOUP DIVISION, P-SMBP	361,178,926	348,773,505	1,078,000	900,000	10,427,421
NUECES RIVER PROJECT	109,304,131	109,174,131	130,000		
OAHE UNIT, P-SMBP	490,000,000	44,693,980	80,000	85,000	445,141,020
PALMETTO BEND PROJECT	74,077,994	74,077,994			
RECREATION MNGMT ACT-TITLE 28 DO	3,297,000		3,297,000		

CONSTRUCTION PROGRAM
SCHEDULE OF DRAINAGE AND MINOR CONSTRUCTION PROJECTS
FISCAL YEAR 1996 AND 1997

PROGRAM ITEM	ESTIMATED TOTAL	TOTAL TO SEPTEMBER 30 1995	FY 1996 PROGRAM	FY 1997 PROGRAM	BALANCE TO COMPLETE
WETLANDS DEVELOPMENT DO	5,886,144	4,746,970	389,561		749,613
WETLANDS DEVELOPMENT GP	25,624,346	4,452,346	4,200,000	1,700,000	15,272,000
WETLANDS DEVELOPMENT LC	9,460,296	61,726	231,570	800,000	8,367,000
WETLANDS DEVELOPMENT MP	7,224,000	1,618,350		1,218,000	4,387,650
WETLANDS DEVELOPMENT PN	3,289,054	247,690	276,000	220,000	2,545,364
SUBTOTAL WETLANDS DEVELOPMENT	51,483,840	11,127,082	5,097,131	3,938,000	31,321,627
YAKIMA FISH PASSAGE FACILITIES	47,351,091	45,771,091	1,210,000	370,000	
TOTAL OBLIGATIONS	2,448,102,113	1,665,544,262	31,019,709	27,253,000	724,285,142
METHOD OF FINANCING					
APPLICATION OF PRIOR YEAR FUNDS			4,219,709		
APPROPRIATION AVAILABLE & REQUIRED			26,800,000	27,253,000	724,285,142
OTHER FEDERAL PARTICIPATION			867,939		
NON FEDERAL PARTICIPATION			7,420,000	7,817,000	13,660,000

SAFETY OF DAMS

SAFETY OF DAMS

The guiding principle of Reclamation's Safety of Dams program is that dams must be maintained and operated in a safe condition to protect the public, property, and natural resources. This requires identifying structures which pose unacceptable risks and taking corrective action to reduce or eliminate those risks. Funds for early detection and analysis activities to identify dams which present unacceptable risks are provided through the Safety Evaluation of Existing Dams program, part of the Operation and Maintenance Appropriation.

The Safety of Dams program implements the intent of the "Reclamation Safety of Dams Act of 1978" (Public Law 95-578, as amended in 1984 by Public Law 98-404). The Act grants authority to undertake necessary actions to provide for the safety of existing dams and related facilities under the jurisdiction of the Bureau of Reclamation. The 1984 amendments to the Act raised the appropriation ceiling from the original $100 million to $750 million for authorized work. Since 1978, 28 dams have been modified and modifications at an additional 8 dams are underway, under these authorities at a cost of $541 million. The authorization ceiling under the 1978 Act does not allow indexing and $12 million remains unexpended through FY 1995. The 1984 Act allows indexing of the authorization ceiling and $343 million remains unexpended. Two activities are not subject to the authorized appropriation ceiling of the Safety of Dams Act. They are the Department of the Interior Dam Safety Program and the safety modifications being done to Coolidge Dam (a Bureau of Indian Affairs structure brought under the provisions of the Safety of Dams Act when it was amended in 1984), San Carlos Irrigation Project, in Arizona.

Reclamation has reservoirs impounded by 475 dams and dikes. Of these, 382 dams and dikes at 262 individual facilities would place the public at risk if they should fail. These 262 facilities are in the Reclamation Dam Safety Program, which includes seven privately owned dams that have become a part of Reclamation projects by previous legislation.

FY 1997 provides for continuing preconstruction and construction work on nine Reclamation dams. They are: Salt River Project, Bartlett, Horseshoe, and Theodore Roosevelt Dams; Crooked River Project, Ochoco Dam; Yakima Project, Bumping Lake Dam; San Angelo Project, Twin Buttes Dam; Scofield Project, Scofield Dam; and Central Valley Project, Mormon Island Auxiliary Dam at the Folsom Facility. Construction activities for the modification of San Carlos Irrigation Project, Coolidge Dam, Arizona, owned and operated by BIA, will continue.

The Initiate Safety of Dams Corrective Action program (ISCA) provides for the preparation of designs, modification reports and corrective action activities,including construction, for up to 32 dams which may include: Crooked River Project, Arthur R. Bowman Dam; Umatilla Project, McKay Dam; Rogue River Basin Project, Fish Lake Dam; Deschutes Project, Wickiup Dam; Vale Project, Warm Springs Dam; Burnt River Project, Unity Dam; Okanogan Project, Conconully and Salmon Lake Dams; Columbia Basin Project, O'Sullivan and Dry Falls Dams; Lewiston Orchards Project, Reservoir "A" Dam; Mann Creek Project, Mann Creek Dam; Boise Project, Deadwood Dam; Salt River Project, Horse Mesa Dam; Weber Basin Project, Lost Creek; Hyrum Project, Hyrum Dam; Carlsbad Project, Avalon Dam; Pick Sloan Missouri Basin Program, Enders, Red Willow, Glen Elder, Norton and Cedar Bluff Dams; North Platte Project, Lake Alice Dam; Cachuma Project, Bradbury Dam; Central Valley Project, Los

Banos, Folsom, and Trinity Dams; Ventura River Project, Casitas Dam; Bostwick Park Project, Silver Jack Dam; Paonia Project, Paonia Dam; and North Platte River Dams including: North Platte Project, Pathfinder Dam; Pick-Sloan Missouri Basin Program, Glendo Dam; and Kendrick Project, Seminoe Dam.

The ISCA program also provides funds for the development and implementation of early warning systems to reduce the potential for loss of life during extreme events. Activities will focus on those structures presenting the greatest risk to the public. The funding of specific projects is presented here based on existing knowledge. As studies progress, certain projects may be accelerated or delayed due to increased knowledge of risks and associated impacts in order to focus funding at the projects where Reclamation can achieve the most timely and effective risk reduction.

FY 1997 funds will provide for corrective action studies to evaluate alternatives that reduce public risk. Funding will also allow Reclamation to coordinate the Department of the Interior Dam Safety Program, which includes providing assistance to the Departmental Working Group on Dam Safety; advising and assisting other Interior agencies with their dam safety programs; performing research and technology updates; and coordinating the Department of the Interior program with the Federal Emergency Management Agency, and other Federal and State agencies.

Summarized Financial Data

Safety of Dams	**Enacted FY 1996**	**Request FY 1997**
Allotment	$75,828,000	$64,179,000
Application of prior year funds	3,803,949	- 0 -
Non-Federal cash	3,799,168	1,195,000
Total program	$83,431,117	$65,374,000

Department Dam Safety Program

Various States

Description The funding request for the Department of the Interior Dam Safety Program allows Reclamation to continue to coordinate and manage the program as the lead technical agency in the Department. Department Manual, Part 753, and Secretarial Order No. 3048 assign responsibility to the Commissioner of Reclamation to assist other Department agencies in implementing the "Federal Guidelines for Dam Safety" as directed by the October 4, 1979, Presidential memorandum. This item includes: representation of the Department on the Interagency Committee on Dam Safety, the preparation of policy and guidance, maintaining an inventory of Interior dams on the National Dam Inventory, providing facilitation to other Interior Bureaus, chairing the Department of the Interior Working Group on Dam Safety, maintaining the Department of the Interior Dam Safety Priority data base, and conducting research that is focused on developing innovative, cost effective, and reliable dam safety solutions that are applicable to Interior dams. Development of a dam safety training aids program in cooperation with other Interior, Federal, and State agencies, and the Association of State Dam Safety Officials will continue. Also, assistance will continue in the support of a dam safety curriculum at Southern University, one of the Historic Black Colleges and Universities, in Louisiana.

FY 1996 allotment	$1,270,000	FY 1997 request	$1,200,000
Prior year funds	71,432		
FY 1996 total program	1,341,432		

Central Valley Project, Folsom Dam

Mormon Island

California

Location Mormon Island Auxiliary Dam is a component of the Folsom Dam facility located on the American River about 26 miles upstream from its confluence with the Sacramento River near Sacramento, California.

Description The Safety of Dams modification report was approved during FY 1992 as three phases with the start of phase III dependent on evaluating results from phases I and II. Phase III has been determined necessary to compact the deep alluvial layers on the upstream side of the dam in order to prevent dam failure during an earthquake. Failure of the dam would threaten as many as 280,000 people living downstream from the dam. Phase III modifications will begin in FY 1997.

FY 1996 allotment	$ - 0 -	FY 1997 request	$1,750,000
Prior year funds	251,000		
FY 1996 total program	$251,000		

Safety of Dams . . . .

Crooked River Project, Ochoco Dam
Oregon

Location The project is located in central Oregon.

Description Dam safety modifications to the spillway will complete.

FY 1996 allotment	$6,000,000	FY 1997 request	$900,000
Prior year funds	1,402,000		
FY 1996 total program	$7,402,000		

Humboldt Project, Rye Patch Dam
Nevada

Location This project is located in western Nevada.

Description Dam safety modifications to stabilize the dam and prevent failure during earthquakes will be completed in FY 1996. Construction was initiated in August 1995 with funding from Initiate Safety of Dam Corrective Actions.

FY 1996 allotment (from ISCA)	$5,300,000	FY 1997 Request	$ - 0 -
Underfinancing	-350,000		
FY 1996 Program	$4,950,000		

Salt River Project, Bartlett Dam
Arizona

Location This project is located approximately 48 miles northeast of Phoenix in Maricopa County, Arizona.

Description The work at Bartlett Dam includes ongoing minor contracts associated with project completion, rehabilitation of the construction area, and contract closeout activities. Contracts for environmental mitigation and coordination will be completed.

FY 1996 allotment	$8,085,000	FY 1997 request	$3,097,000
Prior year funds	8,234		
Non-Federal cash	750,000	Non-Federal cash	408,000
FY 1996 total program	$8,843,234	FY 1997 total program	$3,505,000

Salt River Project, Horseshoe Dam
Arizona

Location This project is located approximately 58 miles northeast of Phoenix in Maricopa County, Arizona.

Description The work at Horseshoe Dam consists of ongoing minor contracts associated with project completion and contract closeout activities.

FY 1996 allotment	$1,103,000	FY 1997 request	$403,000
Prior year funds	16,398		
Non-Federal cash	27,000	Non-Federal cash	26,000
FY 1996 total program	$1,146,398	FY 1997 total program	$429,000

Salt River Project, Theodore Roosevelt Dam [1/]
Arizona

Location This project is located approximately 76 miles northeast of Phoenix in Gila and Maricopa Counties, Arizona.

Description Ongoing contracts at Roosevelt Dam include the contract for traveling museum exhibits, archeological studies, and fish and wildlife mitigation activities consisting primarily of Southwest Willow Flycatcher Section 7 mitigation, bald eagle surveys and nest watch, and Tonto Creek riparian monitoring.

Work to be completed at Roosevelt Dam consists of the platform mound archeological study and recreation relocation and enhancement.

FY 1996 allotment	$19,411,000	FY 1997 request	$4,918,000
Prior year funds	1,097,082		
Non-Federal cash	1,513,000	Non-Federal cash	761,000
FY 1996 total program	$22,021,082	FY 1997 total program	$5,679,000

[1/] These amounts reflect 38 percent of the total cost of Roosevelt Dam. This has been determined to be the Safety of Dams allocation using a Separable Costs Remaining Benefits (SCRB) analysis. The remainder of Roosevelt's costs are allocated to construction under the Central Arizona Project, LCRBDF, Regulatory Storage Division.

San Carlos Irrigation Project, Coolidge Dam
Arizona

Location This project, owned and operated by the Bureau of Indian Affairs, is located approximately 117 miles southeast of Phoenix in Pinal County, Arizona.

Description Noncontract costs for final completion reports and contract closure activities will complete the project.

FY 1996 allotment	$974,000	FY 1997 request	$221,000
Prior year funds	16,483		
FY 1996 total program	$990,483		

San Angelo Project, Twin Buttes Dam
Texas

Location This project is located in west central Texas.

Description The San Angelo Project was constructed in the early 1960's to provide municipal and industrial water, irrigation, flood control, and fish and wildlife benefits. Safety of dams concerns arose due to the uncontrolled seepage of the dam which could result in internal erosion of the dam. Modifications include the construction of a cutoff wall to address the seepage problems. Construction of the cutoff wall will continue in FY 1997.

FY 1996 allotment (from ISCA)	$12,500,000	FY 1997 request	$23,000,000
Underfinancing	-1,415,000		
Prior Year Funds	14,000		
FY 1996 Program	$11,099,000		

Scofield Project, Scofield Dam
Utah

Location This project is located in central Utah

Description The Safety of Dams deficiency is potential liquefaction of foundation materials which would cause the dam to collapse during large earthquakes. Consequences of dam failure would be a loss of many lives, extensive economic damages, and loss of project benefits. Corrective action will consist of strengthening the foundation below the downstream toe of the dam using stone columns and constructing a filter and berm on top of the treated foundation. The modification report was submitted to Congress and the 60-day legislative action period has passed. Construction activities are scheduled to commence in Spring of FY 1996 and will be completed in early FY 1997.

FY 1996 allotment (from ISCA)	$2,000,000	FY 1997 request	$500,000

SOD Corrective Action Studies
Various States

Description Funds for Safety of Dams Corrective Action Studies are being requested to evaluate alternatives for dams with identified deficiencies in order to reduce the threat to the public, property, and resources. Those studies include: evaluations of nonstructural alternatives, early warning system effectiveness, economic project benefit analysis, public involvement activities, and program management. These activities formulate decisions on the scope and need for structural alternatives and lead to preparation of a modification report. The Safety of Dams Corrective Action line item is authorized by Public Law 95-578, Reclamation Safety of Dams Act, November 2, 1978.

FY 1996 allotment	$2,500,000	FY 1997 request	$2,500,000
Prior year funds	171,695		
Underfinancing	-200,000		
FY 1996 Program	$2,471,695		

Yakima Project, Bumping Lake Dam
Washington

Location The project is located in south-central Washington.

Description Dam safety modifications to stabilize the embankment and foundation materials plus spillway outlet improvements and installation of an early warning system to protect the public during large flood events will be completed. In addition, mitigation work related to spotted owl habitat impacts during construction will also complete.

FY 1996 allotment	$1,825,000	FY 1997 request	$640,000
Prior year funds	155,000		
FY 1996 program	$1,980,000		

Initiate Safety of Dams Corrective Action
Various States

Description Funding is requested under the authority of the Reclamation Safety of Dams Act as amended in 1984 by Public Law 98-404 which requires 15 percent repayment by project beneficiaries for work performed under the Act. This activity provides for accomplishment of special studies, preparation of modification reports, preconstruction activities including design, data collection, and preparation of contract specifications, and accomplishment of dam safety modifications not exceeding $750,000. Modification reports, as required by the Safety of Dams Act, are prepared and submitted to Congress for modifications having construction obligations in excess of $750,000. Funding for modifications exceeding $750,000 is requested in ISCA but funds are transferred to a specific project line item once modifications are initiated. As a result, the ISCA allotment is reduced a corresponding amount. Funding required beyond the first year of a modification is typically requested under the specific project line item.

Safety of Dams . . . .

Activities will focus on those structures presenting the greatest risk to the public. The funding of specific projects is presented here based on existing knowledge. As studies progress, certain projects may be accelerated or delayed due to increased knowledge of risks and associated impacts in order to focus funding at the projects where Reclamation can achieve the most timely and effective risk reduction. Modification work in ISCA for FY 1997 is described below for those projects on which actual construction may be anticipated:

Cachuma Project, Bradbury Dam - California

Dam safety deficiencies include overtopping failure of the dam during large flood events and collapse of the dam and appurtenant structures during earthquake loads. Dam failure would threaten 37,000 lives, and cause extensive economic damage and loss of project benefits. The downstream communities are Lompoc, Buelton, and Solvang. Modifications will implement an early warning system to evacuate the public before an overtopping failure due to a large flood, and stabilize the dam to withstand earthquakes. The modification report is scheduled to be submitted in FY 1996. FY 1997 work includes preconstruction and construction activities.

Deschutes Project, Wickiup Dam - Oregon

The dam safety deficiency is liquefaction of foundation materials which will cause the dam to collapse during earthquakes. The population at risk is more than 9,000 people in Bend and Tumalo. Construction of a stability berm along a segment of the downstream toe is the proposed modification. FY 1997 activities include, submitting a modification report, final design, and construction.

North Platte Project, Lake Alice Dam - Nebraska

Dam safety deficiencies are internal erosion (piping) of the dam due to uncontrolled seepage and overtopping and failure of the dam during large floods. Failure of Lake Alice will endanger 415 people along the river and in the city of Scottsbluff, Nebraska. Proposed modifications are constructing a filtered toe drain at the toe of the stability berm for the internal erosion deficiency and install an early warning system for the overtopping deficiency. Construction will start and complete within FY 1997.

Pick-Sloan Missouri Basin Program, Enders Dam - Nebraska

The dam safety deficiency is internal erosion (piping) due to uncontrolled seepage. Failure of Enders Dam could endanger as many as 1,200 lives. Proposed corrective actions call for the construction of a toe drain system at the downstream toe of the dam. Construction will start and complete within FY 1997.

Umatilla Project, McKay Dam - Oregon

The dam safety deficiency is collapse of the dam during earthquake loads. Dam failure will threaten an estimated 1,100 people in the communities of southwest Pendleton, Rieth, Echo, Stanfield, a small part of west Hermiston, and Umatilla. Modifications will stabilize embankment and foundation materials to resist failure during seismic events. FY 1997 work includes submitting a modification report and final design and construction activities.

Weber Basin Project, Lost Creek Dam - Utah

The dam safety deficiencies are overtopping failure of the dam during large flood events and collapse of the dam during earthquake loads. Dam failure would threaten 8,200 people in Ogden, Stoddard, Peterson, Morgan, Devils Slide, and Croyden. Modifications will improve foundation materials and build stability berms to withstand earthquakes. An early warning system to evacuate the population at risk before dam failure is proposed for the flood overtopping deficiency. FY 1997 work includes submitting a modification report final design, early warning system implementation activities, and construction.

FY 1996 ISCA allotment	$35,175,000	FY1997 ISCA request	$25,050,000
Prior year funds	340,519		
SOD Fund Transfers:			
Twin Buttes Dam	-12,500,000		
Rye Patch Dam	-5,300,000		
Scofield Dam	-2,000,000		
Underfinancing	-1,000,000		
FY 1996 ISCA Program	14,715,519		

CONSTRUCTION PROGRAM
SCHEDULE OF SAFETY OF DAMS PROJECTS
FISCAL YEAR 1996 AND 1997

03/19/96

PROGRAM ITEM ESTIMATED TOTAL TOTAL TO SEPTEMBER 30 1995 FY 1996 PROGRAM FY 1997 PROGRAM BALANCE TO COMPLETE

CONSTRUCTION PROGRAM
SCHEDULE OF SAFETY OF DAMS PROJECTS
FISCAL YEAR 1996 AND 1997

03/19/96

PROGRAM ITEM	ESTIMATED TOTAL	TOTAL TO SEPTEMBER 30 1995	FY 1996 PROGRAM	FY 1997 PROGRAM	BALANCE TO COMPLETE
BITTER ROOT PROJECT, COMO DAM	5,186,864	5,186,864			
BOISE, DEER FLAT DAM	18,518,600	18,438,600	80,000		
CACHUMA PROJECT, BRADBURY DAM	227,445	227,445			
CENTRAL ARIZONA PROJECT	138,487,000	109,697,251	20,508,082	4,918,000	3,363,667
CROOKED RIVER, OCHOCO DAM	14,604,940	6,302,940	7,402,000	900,000	
CUP VERNAL UNIT, STEINACKER DAM	8,606,246	8,576,246	30,000		
CVP, FOLSOM DAM	29,930,000	22,678,649	251,000	1,750,000	5,250,351
CVP, LITTLE PANOCHE DAM	10,921	10,921			
CVP, LOS BANOS DAM	61,471	61,471			
CVP, O'NEILL DAM	5,053,803	5,053,803			
DEERFIELD DAM, RAPID VALLEY PROJECT	6,927,191	6,927,191			
DEPARTMENT DAM SAFETY PROGRAM	16,151,321	8,809,889	1,341,432	1,200,000	4,800,000
FRUITGROWERS DAM PROJECT/DAM	2,045,199	2,045,199			
HEART BUTTE UNIT,P-SMBP	2,744,427	2,744,427			
HUMBOLDT PROJECT, RYE PATCH DAM	8,439,425	3,489,425	4,950,000 1/		
HYRUM PROJECT DAM	766,841	766,841			
INITIATE SOD CORRECTIVE ACTION	483,335,260	61,056,741	14,715,519 1/	25,050,00	382,513,000
LAKE TAHOE DAM, NEWLANDS PROJECT	1,007,751	1,007,751			
LEWISTON ORCHARDS PROJECT	1,394,537	1,394,537			
LYMAN PROJECT, MEEKS CABIN DAM	7,137,283	7,012,283	125,000		
MILK RIVER, SHERBURNE DAM	3,503,506	3,503,506			
MINIDOKA, ISLAND PARK DAM	6,305,699	6,305,699			
MINIDOKA, JACKSON LAKE DAM	78,089,668	78,089,668			

03/19/96

CONSTRUCTION PROGRAM
SCHEDULE OF SAFETY OF DAMS PROJECTS
FISCAL YEAR 1996 AND 1997

PROGRAM ITEM	ESTIMATED TOTAL	TOTAL TO SEPTEMBER 30 1995	FY 1996 PROGRAM	FY 1997 PROGRAM	BALANCE TO COMPLETE
NEWLANDS, LAHONTAN DAM	6,337,848	6,337,848			
NEWTON PROJECT/DAM	2,453,702	2,453,702			
NORTH PLATTE, GUERNSEY DAM	557,208	557,208			
ORLAND, EAST PARK DAM	58,072	58,072			
ORLAND, STONY GORGE DAM	3,034,143	3,034,143			
PACTOLA DAM, RAPID VALLEY UNIT	10,161,064	10,161,064			
SALT RIVER, BARTLETT DAM	35,167,000	23,777,150	8,093,234	3,097,000	199,616
SALT RIVER, HORSESHOE DAM	22,773,000	21,028,675	1,119,398	403,000	221,927
SALT RIVER, STEWART MOUNTAIN DAM	37,486,066	37,460,960	25,106		
SAN ANGELO , TWIN BUTTES DAM	60,000,000	3,717,776	11,099,000 1/	23,000,000	22,183,224
SAN CARLOS IRRIGATION, COOLIDGE DAM	48,202,692	46,991,209	990,483	221,000	
SCOFIELD PROJECT/DAM	2,500,000		2,000,000 1/	500,000	
SEEDSKADEE, FONTANELLE DAM	25,773,503	25,773,503			
SOD CORRECTIVE ACTION STUDIES	57,699,488	45,397,793	2,471,695	2,500,000	7,330,000
SUN RIVER, GIBSON DAM	3,273,137	3,273,137			
SUN RIVER, WILLOW CREEK DAM	181,615	181,615			
UMATILLA, COLD SPRINGS DAM	5,837,320	3,387,320	2,450,000		
W.C. AUSTIN, ALTUS DAM	980,977	980,977			
WASHITA, FOSS DAM	6,578	6,578			
YAKIMA, BUMPING LAKE DAM	5,085,547	2,465,547	1,980,000	640,000	
TOTAL OBLIGATIONS	1,166,104,358	596,431,624	79,631,949	15,629,000	425,861,785
METHOD OF FINANCING					
APPLICATION OF PRIOR YEAR FUNDS			3,803,949		
APPROPRIATION AVAILABLE & REQUIRED			75,828,000	64,179,000	425,861,785
NON FEDERAL PARTICIPATION			3,799,168	1,195,000	738,556

1/ So far three dams, funded out of the ISCA line item in FY 1996, have been moved to their own line items in FY 1997. The dams and their FY 1996 funds are: Scofield ($2M); Twin Buttes ($11.1M); and Rye Patch ($4.95M).

SCIENCE AND TECHNOLOGY

SCIENCE AND TECHNOLOGY

The total program is comprised of six applied science and technology activities: Groundwater Recharge Demonstration Program, Improved River Basin Management Control System, Technology Advancement, Watershed and River Systems Management Program, Water Technology and Environmental Research, and Water Treatment Technology.

The Groundwater Recharge Demonstration Program has 13 projects in operation illustrating recharge technologies under various hydrogeological conditions. The program continues to have the active support and participation of non-Federal sponsors.

The Improved River Basin Management Control System program will improve both the operation and efficiency of Reclamation's powerplants and enhance the management of the water supply facilities and associated resources. This demonstration program will take advantage of work already completed to provide improved benefits to both water and power customers and at the same time protect and enhance the environment. The Reclamationwide application of applied science and pilot programs conducted at the Grand Coulee and Hoover Dams has shown that the implementation of the Reclamation

Alternative Modular Supervisory Control and Data System can improve power production capabilities, reduce plant maintenance requirements, and enhance the benefits of the resource management activities for environmental needs.

The Technology Advancement program integrates activities in hydrometeorology, sedimentation, and water quality. Results are enhanced through cooperative efforts with other agencies to assure that Reclamation's dams and other structures are designed, modified, and operated according to the latest professional standards for safety and environmental benefits. Benefits include increased structural safety; environmental protection and enhancement; water resources optimization to improve management of flood control, power generation, power transmission, and droughts.

The Watershed and River Systems Management Program is a cooperative interagency effort that will develop computer models and fully integrated data management systems. These systems will help water managers and water users increase environmental, economic, and social benefits of water systems and improve the management of water resource facilities on the Colorado River system and in the Central Valley of California.

The Water Technology and Environmental Research program supports studies to improve Reclamation's ability to assist local communities and irrigation districts in managing their water resources; supports cooperative studies to improve aquatic and riparian habitat, manage fisheries and related resources, and control aquatic pests; and supports studies to enhance our understanding of risk management, safe operation of powerplants and transmission of electrical energy, dam safety and infrastructure protection and enhancement. This program has significant support and participation of other Federal and non-Federal sponsors.

The Water Treatment Technology program addresses problems and technology needs for water supply augmentation, water quality improvement, and water quality protection. The program investigates the potential to reduce the costs and environmental impacts of water treatment systems, including desalting systems; develops commercially attractive technologies; improves surface and groundwater quality; and facilitates cost-effective conversion of previously unusable water resources to usable water supplies.

Summarized Financial Data
for Science and Technology

	Enacted FY 1996	Request FY 1997
Allotment	$6,290,000	$ 8,140,000
Application prior year funds	1,242,043	
Non-Federal cash	567,000	518,000
Non-Federal non-cash	1,119,000	1,267,000
Other Federal participation	615,000	615,000
Total program	$9,833,043	$10,540,000

Groundwater Recharge Demonstration Program

Location This program is Reclamationwide.

Description The Groundwater Recharge Demonstration Program, as authorized by Public Law 98-434,and reauthorized by Public Law 102-575, directs the Secretary of the Interior to carry out a two-phase program to study the potential for groundwater recharge in the 17 Western States and to demonstrate artificial recharge technologies at a minimum of 21 sites under a variety of hydrogeologic conditions. The demonstration project sites are located in areas having declining water tables; available surface water supplies; and a high probability of physical, chemical, and economic feasibility for recharge.

Phase I of the program was completed in December 1987 by a report to Congress from the Secretary of the Interior recommending 21 projects for construction. Phase II, construction, monitoring, and evaluation of the demonstration projects, was initiated in FY 1989 and is being carried out through the execution of cooperative agreements with local sponsors who are responsible for a minimum of 20 percent of project costs. Of the 21 projects recommended in Phase I, 13 projects are in operation. Seven projects have been indefinitely postponed and Congress has written in funding for the eighth project, Equus Beds.

Authorization Public Law 98-434, and 102-575

Duration Initiation: FY 1986 Completion: FY 1999

Cost-sharing Twenty percent.

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamationt	$24,856,118	$22,882,762	$1,141,000	$540,000	$292,356
Prior year funds	224,617	- 0 -	224,617	- 0 -	
Non-Federal cash	8,709,451	8,659,451	32,000	18,000	- 0 -
Non-Federal non-cash	2,451,620	2,320,620	74,000	57,000	- 0 -
Total program	$36,241,806	$33,862,833	$1,471,617	$615,000	$292,356

Science and Technology . . . .

The following table identifies the demonstration projects by State and gives the distribution of funding for FY 1997:

State	Project	Federal	Non-Federal
Oklahoma	Blaine Gypsum	$ 88,000	$18,000
Idaho	S.W. Irrig. Dist.	250,000	57,000
Subtotal		$338,000	$75,000
Program Coordination/Economic Studies		202,000	- 0 -
Total program		$540,000	$75,000

Cooperative agreements with project sponsors provide for design data collection, cultural surveys, and specifications of design; installation and operation of project facilities; and collection of water quality and water quantity data. The appropriated funds for Phase II represent approximately 80 percent of the total cost of the demonstration projects. The remainder will be provided by the non-Federal sponsors who will perform the work.

Improved River Basin Management Control System (Phase II)

Location Activities will be conducted in the 17 Western States.

Description Operating efficiency of Reclamation water and power facilities will be improved through the replacement of computer control systems in powerplants. Wide utilization of the Reclamation Alternative Modular Supervisory Control And Data System makes it possible to take advantage of resource optimization work which has already been completed. This will improve both operations and efficiency at Reclamation water and power facilities because water and power will be sent exactly when and where they are needed without waste. The demonstration phase of this program will occur on the lower Colorado River (Hoover, Glen Canyon, Parker, Davis, and Imperial Dams) and in the Central Valley of California. Phase I of this program was supported by the Water Technology and Environmental Research activity.

The result will be additional water and power revenues, as well as reduced replacement costs. The environment (especially endangered species) benefits directly from the improved river operation through better control of river flow. Savings exceeding $20,000,000 are expected over the next decade.

Duration Initiation: FY 1997 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,200,000	$ - 0 -	$ - 0 -	$400,000	$800,000

Note: Phase I of this program was supported by the Water Technology and Evironmental Research activity. Total cost through 9/30/95 is $430,000.

Science and Technology . . . .

Technology Advancement

Location This program is Reclamationwide.

Description Activities involving technological advances previously funded in the General Investigations and Operation and Maintenance appropriations have been consolidated in the Technology Advancement Program. This allows more efficient evaluation of the impacts of structural and non-structural modifications on the beneficiaries and the environmental resources. The results of the program are beneficial in all phases of Reclamation's programs, but are most applicable to construction because of the structural modification of existing facilities for safety, environmental, and resource management needs. Due to the high cost of structural modifications, non-structural improvements will be considered prior to structural modifications. Considerations for the protection of the downstream aquatic and riparian habitat will be made prior to operational changes or modifications to control structures. Necessary structural modifications and early warning systems will be designed using the latest professional standards.

Products consist of hydrometeorological reports that address important issues related to design storms and flood analyses, sedimentation studies, and state-of-the-art water quality modeling procedures. The hydrometeorological and sedimentation programs have been in place for decades. These activities allow Reclamation to coordinate with other Federal agencies in an effort to assure consistency of standards and analytical techniques and to conduct precipitation studies critical to the safety evaluation of structures.The sedimentation program supports continued participation in the Federal Interagency Sedimentation Project, equipment standardization, development of procedures for collecting and analyzing sediment data, and predictions of impacts on aquatic habitat.

The water quality program activities focus on acquisition, adaption, and modification of water quality models to meet our resource management needs. Selected reservoir and stream models are used to evaluate water quality impacts of water conservation, environmental restoration, and other proposed management actions. Models, typically developed by other Federal agencies, are modified for Reclamation use at a significant cost saving. In 1997, products will include refining graphics displays and data analysis tools, developing capabilities to model heavy metals and toxins, testing on Reclamation sites, and reviewing new models so the best tools are adopted or updated.

Duration Moved to Construction in FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$2,002,000	$ - 0 - 1/	$282,000	$400,000	$1,320,000

1/ Funding under other appropriations not shown here.

Water Technology and Environmental Research

Location This project is Reclamationwide.

Description The Water Technology and Environmental Research program addresses the most significant water resource management obstacles facing Reclamation's field based managers in the areas of aquatic ecology, facilities safety and infrastructure protection, and watershed and related values. The aquatic ecology studies address fisheries management and protection, particularly fish passage and entrainment, reservoir ecology, and aquatic pest management. Facilities studies involve all aspects of dam safety and the protection and enhancement of Reclamation's $18 billion infrastructure. Watershed studies focus on the development and demonstration of management decision tools, water conservation, water quality protection and enhancement, and resource data management systems. Studies are supported on a rotational basis, with about one-third of the program resources directed at new needs on an annual basis. This program has significant support and participation of other Federal and non-Federal sponsors.

Program Components

Aquatic Ecology:

Applied science and technology development in this area helps improve the understanding of aquatic ecosystems in streams, lakes, and reservoirs influenced by Reclamation's activities. Emphasis areas include:

- Development and testing of models for simulating the effects of reservoir operations and water management actions on riparian, stream and reservoir habitat, water quality, and fishery resources.
- Protection, restoration, and management of fisheries, aquatic and riparian habitat, and wetlands.
- The ecology of Western reservoirs, in order to understand the interaction between streams and reservoirs in large river basins, such as the Colorado River.
- Aquatic pest management.

Studies supported by this element include the Red Bluff Fish Passage Program, Ecology of Western Reservoirs (Shasta Lake and Lake Powell), and the Tracy Pumping Plant in California. In addition, fish screening studies are being done with Reclamationwide applicability.

FY 1996 allotment	$1,057,000	FY 1997 request	$ 986,000
Non-Federal cash	50,000	Non-Federal cash	50,000
Non-Federal non-cash	175,000	Non-Federal non-cash	175,000
Other Federal contributions	300,000	Other Federal contributions	300,000
Total program	$1,582,000	Total program	$1,511,000

Science and Technology . . . .

Facility Safety and Protection

Reclamation operates a significant number of hydroelectric power facilities. Appliedscience and technology development in this area emphasizes:

- Improved efficiency, safety, and operational reliability for generation and transmission of power for Reclamation applications.

Specific studies include Dam Foundation Erosion During Overtopping and Overtopping Protection of Dams (Dam Safety Program); and Performance of Alternative Canal Lining Technology at the Deschutes Oregon Project.

Reclamation also maintains and replaces a significant number of structural facilities and related infrastructures. Applied science and technology development in this area emphasizes:

- Development and testing of new technology for facility maintenance and rehabilitation.
- Development and testing of new technology to extend service life and performance of the water resources infrastructure.

FY 1996 allotment	$600,000	FY 1997 request	$464,000
Non-Federal cash	150,000	Non-Federal cash	100,000
Non-Federal noncash	15,000	Non-Federal noncash	15,000
Other Federal contributions	100,000	Other Federal contributions	100,000
Total program	$865,000	Total program	$679,000

Technology Transfer

Reclamation supports an active technology transfer program which enhances the competitive edge of American industry through cooperation with State and local governments, universities, and the private sector by placing increased emphasis on dissemination of findings, cooperative applied science and development agreements with non-Federal cooperators, and licensing of laboratory technology for commercialization. This component aims to meet the objectives of the Stevenson-Wydler Act of 1980 (Public Law 96-480), the Federal Technology Transfer Act of 1986 (Public Law 99-502), and other related authorities.

FY 1996 allotment	$500,000	FY 1997 request	$719,000
Non-Federal cash	100,000	Non-Federal cash	100,000
Non-Federal non-cash	100,000	Non-Federal non-cash	100,000
Total program	$700,000	Total program	$919,000

Watershed Management

Studies in this program element are directed at improving Reclamation's understanding of the natural and anthropogenic processes that govern the quantity, quality, and availability of water and energy resources in natural and human-dominated systems. Studies and demonstration projects are performed in support of Reclamation's resource management mission at specific project sites. Emphasis areas include:

- Water and energy conservation.
- Development and evaluation of atmospheric, surface and groundwater resources.
- Water quality improvement and protection.
- Water diversion and irrigation scheduling and efficiency.
- Evaluation and testing of new technologies for augmenting and improving water and energy supplies.

Studies supported by this element include Colorado River System modeling, Refined Irrigation Scheduling for Advanced Irrigation Systems in Utah, Regional Hydrologic Forecasting for Mid-Pacific Watersheds, and chemistry of surface and groundwater in California, Nevada, Utah, Arizona and Texas.

FY 1996 allotment	$643,000	FY 1997 request	$1,631,000
Non-Federal cash	150,000	Non-Federal cash	150,000
Non-Federal non-cash	- 0 -	Non-Federal non-cash	- 0 -
Other Federal contributions	215,000	Other Federal contributions	215,000
Total program	$1,008,000	Total program	$1,996,000

Authorization Public Law 57-161, Public Law 96-480, and Public Law 99-502.

Duration Ongoing.

Cost-sharing Fifty percent in FY 1997.

Summarized Financial Data
for WATER

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation 1/	$214,451,241	$115,119,417	$2,800,000	$3,800,000	$92,731,824
Prior year funds	717,577	- 0 -	717,577	- 0 -	- 0 -
Non-Federal cash	7,164,000	3,994,000	450,000	400,000	2,320,000
Non-Federal non-cash	3,283,000	1,603,000	290,000	290,000	1,100,000
Other Federal	5,351,000	3,506,000	615,000	615,000	615,000
Total program	$230,966,818	$124,222,417	$4,872,577	$5,105,000	$96,766,824

1/ Total estimated cost and Total to 9/30/95 contain $80,207,310 which was appropriated for research activities under General Investigations prior to FY 1989.

Science and Technology . . . .

Water Treatment Technology (WTT)

Location This program is Reclamationwide.

Description The Water Treatment Technology program develops and applies new technology related to water treatment for water supply augmentation, water quality improvement, and water quality protection. These studies are directed at reducing costs and minimizing environmental impacts from salt removal, developing commercially attractive technologies, improving surface and groundwater quality, facilitating cost-effective conversion of previously unusable water resources to usable water supplies, and utilizing low-grade heat technologies for the control of salinity. The program promotes applied science work on advanced water treatment and membrane systems through cooperative partnerships with other Governmental agencies (foreign and domestic), private industry, academia, and users.

This program is managed through an interdisciplinary team of investigators and designers. Studies are accomplished through in-house laboratory facilities, a mobile water treatment pilot plant, and cost-shared studies with others. The FY 1997 program will promote studies of advanced water treatment in cooperative projects with small communities, Native American communities, water districts, and commercial entities. Cost-shared studies will be supported by applied science institutes, universities, small entities, and technological firms to promote innovation in water treatment. Typical studies to be performed include:

Program Components

Emerging Technology

Cost-shared studies will be performed to develop and demonstrate technologies that are on the forefront of meeting current and critical desalting and water treatment needs. These emerging technologies will also evaluate immediate problems existing in the water treatment arena and develop and implement new technology solutions. In FY 1997, consideration of new cost effective microfiltration membranes will be explored, as well as, ways to reduce trihallomethane production during water disinfection processes.

FY 1996 allotment	$50,000	FY 1997 request	$140,000
Non-Fed non-cash	- 0 -	Non-Fed non-cash	90,000
Total 1996 Program	$50,000	Total 1997 Program	$230,000

Encourage New Ideas from Independent Investigators

Technology development applied science will be funded for promising ideas from individuals and small companies. Historically, some of the most significant "break throughs" in water treatment methods are the result of providing funding to entities who work independently from the larger applied science organizations.

FY 1996 allotment	$80,000	FY 1997 request	$100,000
Non-Fed non-cash	50,000	Non-Fed non-cash	80,000
Total program	$130,000	Total program	$180,000

Membrane Process Development

To avoid duplication of effort, a consortium has been organized with the United States Army, United States Navy, Environmental Protection Agency, National Institute of Standards and Technology, National Institutes of Health, and other Governmental agencies to coordinate and cost-share basic applied science on new water treatment membranes. Emphasis will be on studies and laboratory tests of low-cost, high-performance membranes, which minimize pretreatment, chemicals, and sludge. In FY 1997, a combination of new starts will be funded, along with Phase II testing and verification of studies funded in the previous fiscal year. This testing will provide design and cost estimates information to move the technologies to the marketplace. As an example of Membrane Process Development projects, we are co-sponsoring the development of a novel nanofiltration membrane which will significantly lower membrane water treatment costs. This technology will be on the market in FY 1997.

FY 1996 allotment	$239,800	FY 1997 request	$450,000
Non-Federal non-cash	170,000	Non-Federal non-cash	200,000
Total program	$409,800	Total program	$650,000

Science and Technology . . . .

Small Community Water Treatment Systems

Studies will be performed to assist various communities and Native American tribes in determining the best water treatment methods to meet their needs. Work will be accomplished using a mobile water treatment pilot plant where treatment methods will be evaluated to determine the best technology to use on existing supplies.

FY 1996 allotment	$58,200	FY 1997 request	$300,000
Non-Federal non-cash	60,000	Non-Federal non-cash	75,000
Total program	$118,200	Total program	$375,000

Technology Transfer

An active program will be conducted to transfer results to communities that benefit from the new developments by providing reports, brochures, and displays. In addition, Reclamation will continue to cosponsor technical meetings to assure transfer of new technology and to determine consensual desalting applied science needs. As an example of Technology Transfer efforts, we recently initiated implementation of the National Water Research Centers, in cooperation with the National Water Research Institute and the United States Army, to provide acess to researchers to pilot plants and laboratory facilities throughout the United States. This effort will reduce the need for additional construction of facilities and purchasing of duplicative equipment; create and cultivate partnerships between Government, academia, and industry; and will promote the cost-effective allocation of financial, human and facilities resources through the desalinization community.

FY 1996 allotment	$155,000	FY 1997 request	$180,000

Wellhead Treatment Processes

Cooperative studies with State and local water entities are being accomplished to develop water treatment systems that treat well waters of impaired quality, while producing lower concentration reject flows that can be used for other beneficial purposes. In FY 1997, the WTT Mobile Water Treatment Pilot Plant will be utilized on-site at a number of native and small community wellheads to assist in resolving water treatment problems. The on-site testing will include a comprehensive evaluation and recommendation of the most effective and efficient water treatment processes. Recent projects have included pilot testing with the flollowing communities; Lake Havasu City, Chandler, and Avondale, AZ; and the Gila River Indian Reservation in Arizona.

FY 1996 allotment	$155,000	FY 1997 request	$220,000
Non-Federal cash	25,000	Non-Federal cash	50,000
Non-Federal non-cash	75,000	Non-Federal non-cash	125,000
Total program	$255,000	Total program	$395,000

Western Water Projects

Cost-shared preliminary studies and lab testing are currently being initiated in partnership with private industry, universities, and local communities to study water treatment at specific sites that can result in significantly more usable water in the West. In FY 1997, year two of cost-shared pilot plants will be demonstrated at a scale suitable for the users to determine and support the entire funding of full-scale water treatment plants and move the technology into the private sector. Technologies are presently being demonstrated in the Colonias area of east El Paso, TX; at the Port Hueneme Naval facility, CA; and the Natural Energy Laboratory, HI.

FY 1996 allotment	$444,000	FY 1997 request	$410,000
Non-Federal cash	60,000	Non-Federal cash	50,000
Non-Federal non-cash	300,000	Non-Federal non-cash	200,000
Total program	$804,000	Total program	$660,000

Science and Technology . . . .

Wastewater Reclamation

Cooperative cost-shared applied science studies with the private sector and municipalities are being accomplished to investigate the application of membrane separation technologies for the treatment of waters contaminated with toxic or otherwise deleterious substances from industrial processes, municipal treatment effluents, or from irrigation drainages. Initial studies in Wastewater Reclamation began in FY 1996. In FY 1997, on-site process verification testing will be conducted using technologies developed in FY 1996. An example of a Wastewater Reclamation project would include the industrial textile effluent treatment project, primarily the removal of dyes, in Harlingen, TX, which is evaluating membrane processes to maximize the communities water supply.

FY 1996 allotment	$138,000	FY 1997 request	$200,000
Non-Federal non-cash	100,000	Non-Federal non-cash	150,000
Total program	$238,000	Total program	$350,000

Authorization Public Law 98-242.

Duration Initiation: FY 1992 Completion: Ongoing

Cost-sharing Thirty percent.

Summarized Financial Data
for WTT

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$17,176,196	$5,845,805	$1,320,000	$2,000,000	$ 8,010,391
Prior year funds	10,391	- 0 -	10,391	- 0 -	
Non-Federal cash	1,485,000	900,000	85,000	100,000	400,000
Non-Federal non-cash	7,080,000	1,725,000	755,000	920,000	3,680,000
Total program	$25,751,587	$8,470,805	$2,170,391	$3,020,000	$12,090,391

Watershed and River Systems Management Program (formerly WMSI)

Location This program is Reclamationwide.

Description The Watershed and River Systems Management Program is a cooperative interagency applied science and development effort with the U.S. Geological Survey, Tennessee Valley Authority, and Western Area Power Administration. This program is developing computer models and fully integrated data management systems to help water managers and water users increase environmental, economic, and social benefits of water systems and improve the management of water resource facilities. These models and data base systems can be applied to any river watershed to:

Improve environmental quality, including protection and enhancement of wetlands and protection of endangered species; improve water quality, including reduction of salinity; preserve in-stream and riparian habitat; and provide other nonmonetary benefits.

Increase the benefits associated with various water uses such as municipal and industrial water supply, agriculture, instream uses, hydropower, and recreation, utilizing the existing water resource infrastructure of dams, reservoirs, canals, pipelines, and hydroelectric generating facilities.

Increase the availability of water by more efficient water management and by reducing losses.

Reclamation's efforts in the program will focus on development and improvement of data management and modeling tools. These include modeling of system operations, water management and deliveries, maintaining flows for protection of endangered species and enhancement of aquatic habitat, and improving the efficiency of agricultural water use. Specific topics include: water use, land use, simulation of the water rights system, balancing project benefits, optimization of system operations, stochastic hydrologic modeling, nested regional/local scale atmospheric precipitation modeling, operational runoff forecasting, real-time reservoir operations modeling, and decision support systems. The U.S. Geological Survey will fund its part of the effort.

Duration Initiation: FY 1995 Completion: 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$4,000,000	$1,128,382	$747,000	$1,000,000	$1,103,001
Prior year funds	21,617	- 0 -	21,617	- 0 -	- 0 -
Total program	$4,021,617	$1,128,382	$768,617	$1,000,000	$1,103,001

CONSTRUCTION PROGRAM
SCHEDULE OF SCIENCE AND TECHNOLOGY PROJECTS
FISCAL YEAR 1996 AND 1997

03/19/96

PROGRAM ITEM	ESTIMATED TOTAL	TOTAL TO SEPTEMBER 30 1995	FY 1996 PROGRAM	FY 1997 PROGRAM	BALANCE TO COMPLETE
ATMOSPHERIC WATER RES MGT PROGRA	228,000	228,000			
GLOBAL CLIMATE CHANGE	8,721,784	8,453,943	267,841		
GROUNDWATER RECHARGE DEMO PRGRM	25,080,735	22,882,762	1,365,617	540,000	292,356
IMPROVED RIVER BASIN MGMT CONTROL	1,200,000			400,000	800,000
TECHNOLOGY ADVANCEMENT	2,002,000		282,000	400,000	1,320,000
WATER TREATMENT TECHNOLOGY	17,176,196	5,845,805	1,330,391	2,000,000	8,000,000
WATERSHED/RIVER SYS MGMT PROG	4,000,000	1,128,382	768,617	1,000,000	1,103,001
WATER TECH/ENVIRON RESEARCH	134,961,508	34,912,107	3,517,577	3,800,000	92,731,824
TOTAL OBLIGATIONS	193,370,223	73,450,999	7,532,043	8,140,000	104,247,181
METHOD OF FINANCING					
APPLICATION OF PRIOR YEAR FUNDS			1,242,043		
APPROPRIATION AVAILABLE & REQUIRED			6,290,000	8,140,000	104,247,181
OTHER FEDERAL PARTICIPATION			615,000	615,000	2,460,000
NON FEDERAL PARTICIPATION			567,000	518,000	4,390,000

LOAN PROGRAM

Project or Activity	Page Number
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Ute Mountain Ute	370a

LOAN PROGRAM

Description

Under the Small Reclamation Projects Act of 1956 (Public Law 84-984) the Federal Government, in partnership with local districts, finances projects to conserve water by upgrading less efficient facilities, improve water quality, enhance fish and wildlife, and support Indian self-sufficiency through loans to Native American projects.

FY 1997 Program

Reclamation's FY 1997 proposal includes seven ongoing loans and funding for loan program administration.

For FY 1997 the Department's proposal includes funding for five loans that were transmitted to Congress by the Secretary in May 1994. These loans are the Castroville Irrigation Water Supply Project, Chino Basin Desalination Project, Milltown Hill Project, Salinas Valley Water Reclamation Facility, and the Temescal Valley Project. In addition to the above five projects, there are two other project applications which are nearing completion prior to transmittal to Congress. They are the Narrows Project, and the San Sevaine Creek Water Project.

Reclamation proposes to include $9.4 million for the five ongoing loans which were part of a group of applications that the Secretary processed in May 1994. .

Program Highlights

Native American

The FY 1997 program contains one ongoing loan to the Tohono O'odham Nation for a distribution system that will enable the Schuk Toak District to efficiently utilize the water delivered under the terms of the Southern Arizona Water Rights Settlement Act of 1982.

Wastewater Reuse

A continuing loan, the Eastern Municipal Water District No. 3 Wastewater Reclamation and Reuse Project, provides increased public benefits that may not have been achievable without Federal funding; namely for creation of wetlands and instream uses and for outdoor recreation. The Salinas Valley Water Reclamation Facility for Crop Irrigation would construct a tertiary wastewater treatment facility to treat wastewater to meet irrigation requirements.

Credit Reform

For clarification purposes, when we refer to "other Federal funding" we are referring to Treasury funds available pursuant to Public Law 101-508 Title V the "Federal Credit Reform Act of 1990". The Act requires the Federal budget to account for credit program costs so that they may be more easily compared with the costs of other Federal spending. The costs of a direct loan are divided into two components. The first is the subsidy component (costs which are not expected to be returned to the government), and the second is the unsubsidized component (amount the government expects borrowers to repay fully on a present value basis over the life of the loan). When reviewing this document for the Loan program, you will find funding delineated as Reclamation and other Federal. The **Reclamation** funding represents the subsidy portion of the total loan. The **other Federal** (Treasury) funding represents the unsubsidized portion of the total loan. The loan recipient will receive a disbursement from the Federal government for both the Reclamation and Treasury portions.

Summarized Financial Data

Loan Program	Enacted FY 1996	Request FY 1997
Appropriation	$11,668,000	$12,715,000
Application of prior year funds	8,233,843	- 0 -
Other Federal participation 1/	11,550,129	15,772,578
Total obligations	$31,451,972	$28,487,000
Non-Federal participation - services	36,000,000	12,419,100
Total program	$67,453,000	$40,906,100

NOTE: 1/ The Other Federal participation (Treasury portion) is an estimate at this time.

BUREAU OF RECLAMATION
LOAN PROGRAM

Detail of Funding FY 1996 and FY 1997
(in thousands of dollars)

	Fiscal Year 1996				Fiscal Year 1997		
Project or Study	New Budget Authority	Prior Year Funds Available	Other Federal Funding	Total	New Budget Authority	Other Federal Funding	Total
Eastern Municipal Water District #3	2,200	21	3,834	6,055	1,030	1,818	2,848
Fort McDowell Indian Community	0	7,642	1,721	9,363	0	0	0
Tohono O'odham Schuk Toak	3,043	500	1,502	5,045	1,810	725	2,535
subtotal	5,243	8,163	7,057	20,463	2,840	2,543	5,383
Grandfathered							
Castroville Irrigation Water Supply	1,500	0	1,210	2,710	2,000	2,131	4,131
Chino Basin Desalination Project	1,100	25	1,644	2,769	1,650	3,942	5,592
The Dalles Irrigation District	0	38	0	38	0	0	0
Douglas County - Milltown Hill	100	0	55	155	2,650	1,545	4,195
Salinas Valley Reclamation Project	1,100	0	880	1,980	1,500	1,561	3,061
Temescal Valley Project	700	9	704	1,413	1,650	4,050	5,700
Ute Mountain Ute	1,500	0	0	1,500	0	0	0
subtotal	6,000	72	4,493	10,565	9,450	13,229	22,679
Loan Administration	425	0	0	425	425	0	425
TOTAL - LOAN PROGRAM	11,668	8,235	11,550	31,453	12,715	15,772	28,487

NOTE: The "Other Federal Funding" (Treasury portion) is an estimate at this time.

LOAN PROGRAM

Castroville Irrigation Water Supply Project, California: The Monterey County Water Resources Agency project consists of: (1) a 12,049 acre irrigation distribution system; (2) capping water wells which extend into the intruded aquifer; (3) acquiring and maintaining wells to pump 12,050 acre feet of water per year; (4) implementing a water conservation plan; and (5) purchasing 19,450 acre feet of reclaimed wastewater per year. The reclaimed wastewater, which is presently being disposed of in Monterey Bay, will be used to replace groundwater being pumped for agricultural irrigation.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$13,813,000	$ 1,064,000	$1,500,000	$2,000,000	9,249,000
Non-Federal	11,049,900	9,941,000	550,000	279,450	279,450
Other Federal	18,637,000	691,000	1,210,000	2,131,000	14,605,000

Chino Basin Desalination Project (Santa Ana Watershed Project Authority), California: This project will enable contaminated water to be pumped from the Chino Basin Aquifer and treated at the desalting plant. The resulting brine and contaminants will be discharged into the Santa Ana Regional Interceptor Pipeline, and the reclaimed water will be pumped into the existing water supply system to be used for agriculture and municipal and industrial use.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$8,200,000	$875,293	$1,124,707	$1,650,000	$4,550,000
Non-Federal	15,623,000	550,000	4,000,000	2,768,250	8,304,750
Other Federal	23,831,000	951,030	1,643,970	3,942,000	17,294,000

Eastern Municipal Water District No. 3, California: The project will provide reclaimed water to over 21,000 acres of irrigated land and will provide over 23,000 acre-feet of municipal and industrial water as well as provide reclaimed water for expansion of three separate wetlands, covering approximately 600 acres, thus preserving treated potable water that would have been lost without the proposed system.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$13,650,411	$10,399,880	$2,220,531	$ 1,030,000	$ - 0 -
Non-Federal	13,621,400	7,300,000	3,000,000	3,321,400	- 0 -
Other Federal	17,399,589	11,748,040	3,833,971	1,817,578	- 0 -

Milltown Hill Project, Douglas County, Oregon: The Milltown Hill Project is to provide a 24,143 acre-foot reservoir and pipeline distribution system 18.5 miles long in the Elk Creek subbasin of Western Oregon. This system would provide increased water supplies during the growing season through an irrigation system for the Yoncalla and Scott's Valley, and arable lands along Elk Creek.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$16,899,000	$ - 0 -	$100,000	$2,650,000	$14,149,000
Non-Federal	12,390,000	6,800,000	300,000	1,500,000	3,790,000
Other Federal	13,392,000	- 0 -	55,000	1,545,000	11,792,000

Ongoing Projects . . . .

Salinas Valley Water Reclamation Facility for Crop Irrigation, California: The Monterey Regional Water Pollution Control Agency (MRWPCA) would construct a tertiary wastewater treatment facility to treat wastewater to meet irrigation requirements. The MRWPCA will sell this reclaimed wastewater to the Monterey County Water Resources Agency to irrigate crops in the Castroville area.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$8,973,000	$ 900,000	$1,100,000	$1,500,000	5,473,000
Non-Federal	6,900,000	2,350,000	4,000,000	550,000	- 0 -
Other Federal	11,446,000	570,000	880,000	1,561,000	8,435,000

Temescal Valley Project (Elsinore Valley Municipal Water District), California: The project will convey, store, and distribute Woodcrest Project water to Temescal Valley for agricultural and municipal and industrial usage.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$ 5,268,000	$341,173	$ 708,827	1,650,000	2,568,000
Non-Federal	10,659,000	500,000	2,000,000	3,000,000	5,159,000
Other Federal	16,988,000	263,190	703,810	4,050,000	11,971,000

Tohono O'odham Nation - Schuk Toak District, Arizona: The project will provide a distribution system that will enable the District to efficiently utilize the water delivered under the terms of the Southern Arizona Water Rights Settlement Act of 1982, Public Law 97-293.

	TEC	9/30/95	FY 1996	FY 1997	BTC
Reclamation	$ 5,353,000	$ - 0 -	$3,543,000	$ 1,810,000	$ - 0 -
Non-Federal	19,150,000	500,000	17,650,000	1,000,000	- 0 -
Other Federal	2,227,000	- 0 -	1,502,000	725,000	- 0 -

Loan Administration: This program is used for the processing of potential loans, negotiation of contracts, and similar activities. These activities are performed prior to the granting of the loan and, therefore, require an independent source of financing. Upon execution of a contract for a loan under this program, all administrative costs incurred on the specific proposal to that time, as well as all future costs, are charged to the organization securing the loan and are repaid in accordance with the loan agreement. Since the authorizing acts make administrative functions not assignable to specific loans, a portion of these administrative funds is considered nonreimbursable.

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GENERAL INVESTIGATIONS

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GENERAL INVESTIGATIONS

Description

The FY 1997 General Investigations (GI) program reflects Reclamation's continued emphasis on water resources management and conservation. The FY 1997 program promotes those studies which identify ways to meet current and future water quality, quantity, and environmental needs through enhanced management of existing Reclamation and non-Federal facilities, and through nonstructural or minor structural solutions.

FY 1997 Program

The FY 1997 proposed budget contains a total Federal program of $15,095,000. Almost all of the studies in the GI program have cost-sharing partners. In FY 1997 the program includes approximately $8.2 million of non-Federal contributions.

Program Highlights

Water Management

Improved water management continues as the main focus of the FY 1997 program. Included in the eighteen new studies are 7 studies which concentrate on effective management of water. These studies are the Carbon\Emery Counties Water Management Plan, Delta Model Development Group, Dolores River Basin Runoff Model, Middle Rio Grande Water Conveyance Management Plan, Montana River Systems Study, Southern Arizona Regional Water Management Study, and the Upper Arkansas River Needs Assessment. These studies will be a cooperative effort between Reclamation and State and local governments and water districts. Development of management plans for multipurpose use of water supplies is a vital part of successful innovative water management.

Water Quality

Both new and ongoing planning studies deal with the quality and quantity of the water supply. An example of this are two new studies, the Cheney Reservoir Water Quality and the Ogden River Basin Water Quality Management Investigation. These studies plan to evaluate Reclamation projects within the State for their effectiveness in meeting future availability of water.

Water Supply and Conservation

Ten studies in the FY 1997 program concentrate on the quantity of water through conservation methods. These studies are Ashley\Brush Creeks Optimization Study, Central Oregon Irrigation System Conservation Project Feasibility Study, Edwards Aquifer Regional Water Resources and Management Study, Northwest Oregon Regional Water Supply, Oklahoma Water Supply System, Oregon Stream Restoration Planning Study, Oregon Subbasin Conservation Planning, Rio Grande\Low Flow Conveyance Channel, Upper Salmon River Water Optimization, and Western Montana Water Conservation Study.

Fish and Wildlife

Effective management of the ecosystem includes the protection and enhancement of fish and wildlife resources, and the management and recovery of endangered species. Five of the new studies directly involved in Fish and Wildlife activities include the Friant Upper Basin Optimization Study, Jefferson River Basin Agricultural Return Flow Study, Mystic Lake Watershed Management Investigation, New Melones Temperature Control Evaluation, and Umatilla Basin Project, Phase III.

Indian

Two of the new studies focus on Indian water issues. They are the Hopi Water Management Study, and the Navajo Water Management Study which will identify current water resources on the reservations and options to manage those resources.

New Studies

The 18 new studies for FY 1997 are:

1. Carbon/Emery Counties Water Management Plan, UT
2. Cheney Reservoir Water Quality Investigations, KS
3. Cold-Climate Wastewater Treatment Study, MT
4. Delta Model Development Group, CA
5. Dolores River Basin Runoff Model, CO
6. Friant Upper Basin Optimization Study, CA
7. Hopi Water Management Study, AZ
8. Jefferson River Basin Return Flow Study, MT
9. Lower Owens River Environmental Study, CA
10. Middle Rio Grande Water Conveyance Management Plan, NM
11. Montana River Systems Study, MT
12. Mystic Lake Watershed Management Investigation, CA
13. Navajo Water Management Study, AZ
14. New Melones Temperature Control Evaluation, CA
15. Ogden River Basin Water Quality Management Investigation, UT
16. Southern Arizona Regional Water Management Study, AZ
17. Umatilla Basin Project, Phase III, OR
18. Upper Arkansas River Needs Assessment, CO

Summarized Financial Data

General Investigations	Enacted FY 1996	Request FY1997
Appropriation	$12,684,000	$15,095,000
Application of prior year funds	2,664,163	- 0 -
Non-Federal participation - cash	780,000	1,400,000
Total obligations	$16,128,163	$16,495,000
Non-Federal participation - services	6,196,000	6,806,000
Total program	$22,324,163	$23,301,000

BUREAU OF RECLAMATION
GENERAL INVESTIGATIONS PROGRAM

Detail of Funding FY 1996 and FY 1997
(in thousands of dollars)

Project or Study	Fiscal Year 1996				Fiscal Year 1997		
	New Budget Authority	Prior Year Funds Available	Non Federal Contri-butions	Total	New Budget Authority	Non Federal Contri-butions	Total
ONGOING							
American River/Folsom South Optimization	0	35	0	35	0	0	0
Ashley/Brush Creeks Optimization Study	75	0	75	150	200	200	400
Bear River Basin Water Quality	100	34	81	215	0	0	0
Black Hills Regional Water Management	150	0	150	300	75	75	150
Carlton Lake Restoration	50	1	100	151	0	0	0
Central Oregon Irrigation System	200	0	200	400	250	250	500
Colorado River Water Quality Imp. Prog.	340	132	0	472	360	0	360
Del Norte County/Crescent City Wastewater	300	0	0	300	0	0	0
Drought Investigations	40	17	0	57	0	0	0
Edwards Aquifer Regional Water Study	240	21	240	501	190	190	380
Environmental & Interagency Coord.	1,195	408	0	1,603	1,745	0	1,745
Fort Bragg Water Reclamation Study	500	0	0	500	0	0	0
Fort Peck Indian Reservation	0	15	0	15	0	0	0
General Planning Studies	1,566	367	0	1,933	1,985	0	1,985
Grand Valley Project Water Conservation	50	2	50	102	0	0	0
Grande Ronde Water Optimization Study	200	0	100	300	150	200	350
Idaho River Systems Management	100	0	100	200	250	250	500
Imperial Valley Water Rec. and Reuse Study	175	75	175	425	175	175	350
Investigation of Existing Projects	423	81	0	504	705	0	705
Kansas Comprehensive Investigation	75	0	0	75	0	0	0
Lower Colorado River Regulatory Storage	0	83	0	83	0	0	0
Lower Rio Grande Basin Study	0	74	0	74	0	0	0
Middle Rio Grande Water Assessment	0	6	0	6	0	0	0
Minor Work on Completed Projects	99	89	0	188	145	0	145
Missouri River Basin Indian Tribes	250	0	0	250	250	0	250
Musselshell River Management Plan	0	29	0	29	0	0	0
Nebraska Water Supply Assessment	75	0	75	150	100	100	200
Northwest Oregon Regional Water Supply	300	0	310	610	200	165	365
Oklahoma Water Supply Systems	75	0	75	150	125	125	250
Oregon Stream Restoration	150	10	150	310	150	150	300
Oregon Subbasin Conservation	200	10	220	430	100	100	200
Owyhee Project Storage Optimization	50	0	50	100	0	0	0

BUREAU OF RECLAMATION
GENERAL INVESTIGATIONS PROGRAM

Detail of Funding FY 1996 and FY 1997

Project or Study	Fiscal Year 1996				Fiscal Year 1997		
	New Budget Authority	Prior Year Funds Available	Non Federal Contri-butions	Total	New Budget Authority	Non Federal Contri-butions	Total
ONGOING (continued)							
Pallid Sturgeon Recovery	140	0	140	280	140	140	280
Pecos River Basin F&W Water Quality	0	16	40	56	0	0	0
Reclamation Wastewater Studies	0	2	0	2	0	0	0
Rincon Bayou- Nueces Marsh Wetlands	150	0	125	275	100	125	225
Rio Grande\Rio Bravo Basin Assessment	150	0	150	300	200	200	400
Rio Grande\Low Flow Conveyance Study	75	0	75	150	200	120	320
Rio Grande Conveyance Canal Pipeline	150	0	150	300	0	0	0
Salton Sea	100	69	215	384	0	0	0
San Francisco Area Water Rec. Study	1,000	75	1,500	2,575	1,500	1,500	3,000
San Juan Gallup/Navajo Water Supply	100	0	50	150	0	0	0
Southern CA Coastal Water Supply	50	0	50	100	250	250	500
Southern CA Comp. Water Supply	750	31	510	1,291	750	810	1,560
Southern Oregon Coastal River Basins	100	0	100	200	200	200	400
Technical Assistance to States	1,271	633	0	1,904	1,925	0	1,925
Tri-County Feasibility Study	150	0	0	150	0	0	0
Tucson/Phoenix Water Conservation	50	183	50	283	0	0	0
Upper Deschutes River Basin	50	10	200	260	0	0	0
Upper Salmon River Water Optimization	150	0	150	300	150	150	300
Upper Snake River Basin Salmon Migration	250	83	300	633	300	300	600
Upper Snake River Storage Optimization	200	0	100	300	50	62	112
Verde River Basin Management	125	0	125	250	125	125	250
Walker River Basin	150	0	150	300	0	0	0
Washington River Basin Planning	75	0	75	150	125	125	250
Weber Basin Water Quality/Watershed	100	41	150	291	0	0	0
Western Montana Water Conservation	200	1	200	401	150	150	300
West Texas/Southern New Mexico Water	0	30	0	30	0	0	0
Yampa River Water Supply Study	50	0	100	150	0	0	0
Yellowstone River Basin Study	120	0	120	240	100	100	200
Subtotal - Ongoing	12,684	2,663	6,976	22,323	13,420	6,337	19,757

BUREAU OF RECLAMATION
GENERAL INVESTIGATIONS PROGRAM

Detail of Funding FY 1996 and FY 1997
(in thousands of dollars)

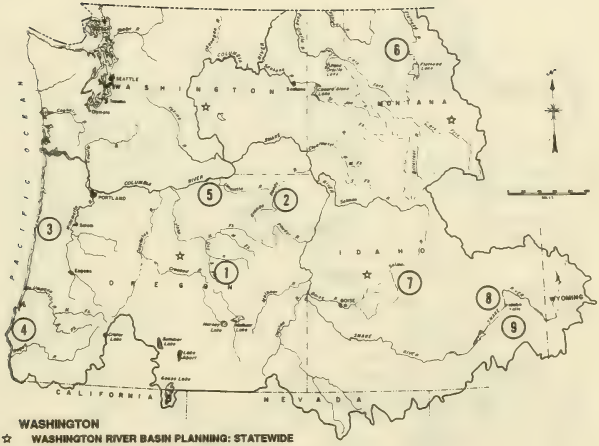
Project or Study	Fiscal Year 1996				Fiscal Year 1997		
	New Budget Authority	Prior Year Funds Available	Non Federal Contri-butions	Total	New Budget Authority	Non Federal Contri-butions	Total
FY 1997 NEW STUDIES							
Carbon and Emery Counties Water Mgmnt.					100	100	200
Cheney Reservoir Water Quality					100	100	200
Cold-Climate Wastewater Treatment					35	23	58
Delta Model Development					90	610	700
Dolores River Basin Runoff					75	75	150
Friant Upper Basin					75	0	75
Hopi Water Management Study					80	11	91
Jefferson River Basin Agricultural					80	80	160
Lower Owens River Environ. Study					100	100	200
Middle Rio Grande Water Conveyance					100	100	200
Montana River Systems Study					150	150	300
Mystic Lake Watershed Management					100	100	200
Navajo Water Management					100	20	120
New Melones Temperature Control					90	0	90
Ogden River Quality Management Basin Wtr					50	50	100
Southern Arizona Regional Water Mngmnt					150	150	300
Umatilla Basin Project, Phase III					100	100	200
Upper Arkansas River Needs Assessment					100	100	200
Subtotal - New Studies	12.684	2,663	6,976	22,323	1,675	1,869	3,544
TOTAL - GENERAL INVESTIGATIONS	12,684	2,663	6,976	22,323	15,095	8,206	23,301
			1/			2/	

1/ Includes $780,000 cash and $6,196,000 in-kind services.

2/ Includes $1,200,000 cash, $6,806,000 in-kind services, and $200,000 other Federal agency contributions.

GENERAL INVESTIGATIONS

NEW STUDIES



WASHINGTON

☆ WASHINGTON RIVER BASIN PLANNING: STATEWIDE

OREGON

1. CENTRAL OREGON IRRIGATION SYSTEM CONSERVATION FEASIBILITY STUDY
2. GRANDE RONDE WATER OPTIMIZATION STUDY
3. NORTHWEST OREGON REGIONAL WATER SUPPLY STUDY
4. SOUTHERN OREGON COASTAL RIVER BASINS
5. UMATILLA BASIN PHASE III

☆ OREGON STREAM RESTORATION PLANNING STUDY: STATEWIDE

☆ OREGON SUBBASIN CONSERVATION PLANNING: STATEWIDE

MONTANA

6. WESTERN MONTANA WATER CONSERVATION STUDY

☆ MONTANA RIVER SYSTEMS STUDY: STATEWIDE

IDAHO

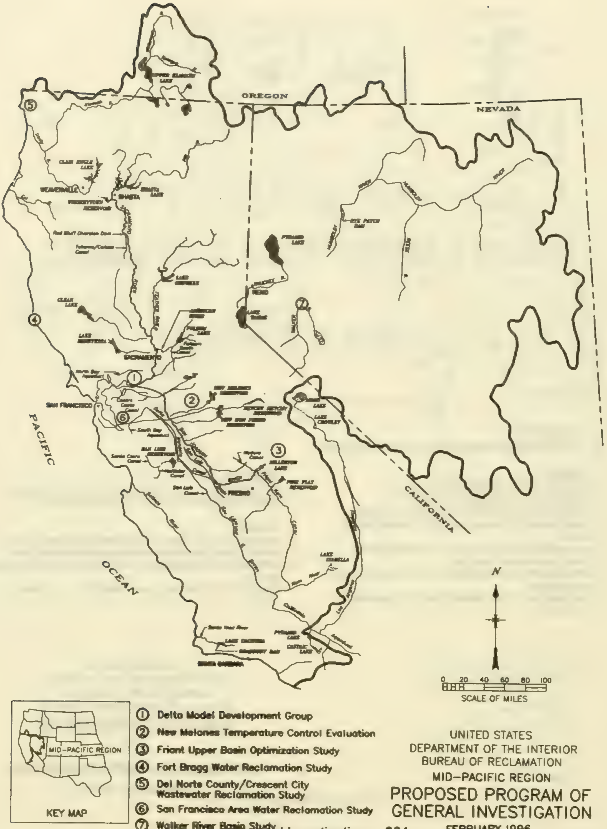
7. UPPER SALMON RIVER WATER OPTIMIZATION STUDY
8. UPPER SNAKE RIVER BASIN STORAGE OPTIMIZATION
9. UPPER SNAKE RIVER BASIN SALMON MIGRATION WATER STUDY

☆ IDAHO RIVER SYSTEMS MANAGEMENT: STATEWIDE

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
PACIFIC NORTHWEST REGION

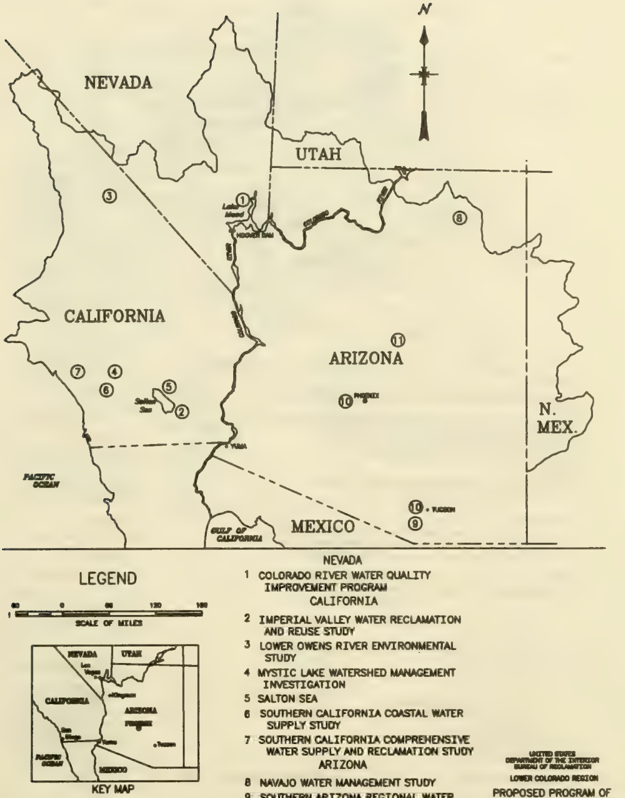
PROPOSED PROGRAM OF GENERAL INVESTIGATIONS

February 1996



① Delta Model Development Group
② New Melones Temperature Control Evaluation
③ Friant Upper Basin Optimization Study
④ Fort Bragg Water Reclamation Study
⑤ Del Norte County/Crescent City Wastewater Reclamation Study
⑥ San Francisco Area Water Reclamation Study
⑦ Walker River Basin Study

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MID-PACIFIC REGION
PROPOSED PROGRAM OF
GENERAL INVESTIGATION
FEBRUARY 1996



NEVADA

1 COLORADO RIVER WATER QUALITY IMPROVEMENT PROGRAM

CALIFORNIA

2 IMPERIAL VALLEY WATER RECLAMATION AND REUSE STUDY
3 LOWER OWENS RIVER ENVIRONMENTAL STUDY
4 MYSTIC LAKE WATERSHED MANAGEMENT INVESTIGATION
5 SALTON SEA
6 SOUTHERN CALIFORNIA COASTAL WATER SUPPLY STUDY
7 SOUTHERN CALIFORNIA COMPREHENSIVE WATER SUPPLY AND RECLAMATION STUDY

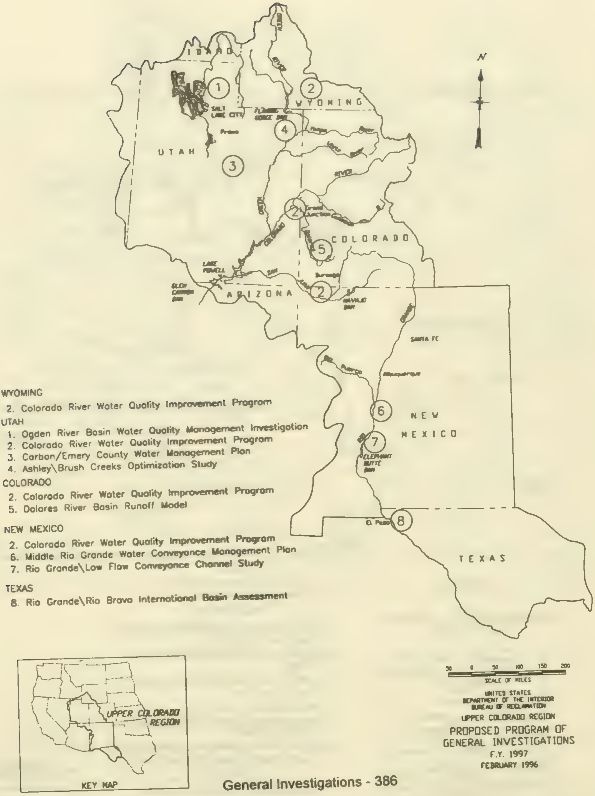
ARIZONA

8 NAVAJO WATER MANAGEMENT STUDY
9 SOUTHERN ARIZONA REGIONAL WATER MANAGEMENT STUDY
10 TUCSON/PHOENIX WATER CONSERVATION AND RECHARGE STUDY
11 VERDE RIVER BASIN MANAGEMENT STUDY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
LOWER COLORADO REGION

PROPOSED PROGRAM OF
GENERAL INVESTIGATIONS

FEBRUARY 1996



WYOMING
2. Colorado River Water Quality Improvement Program

UTAH
1. Ogden River Basin Water Quality Management Investigation
2. Colorado River Water Quality Improvement Program
3. Carbon/Emery County Water Management Plan
4. Ashley\Brush Creeks Optimization Study

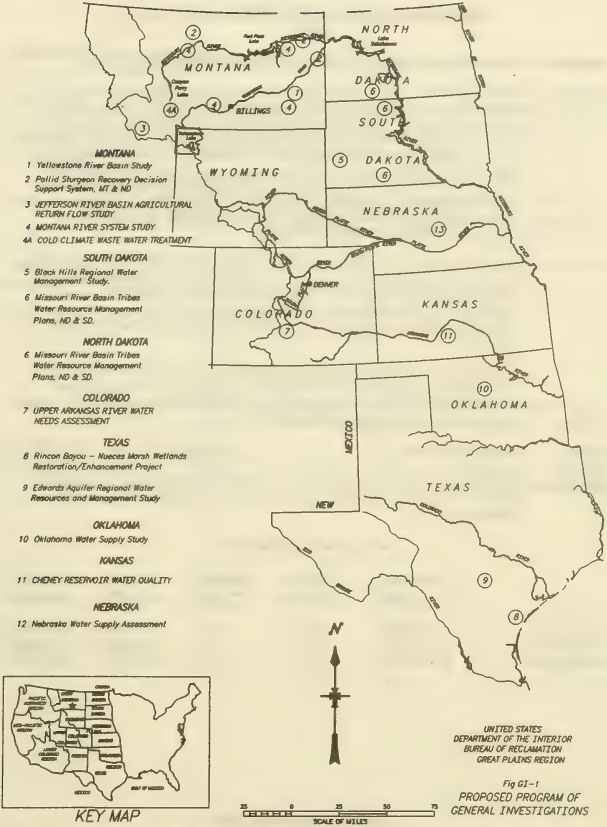
COLORADO
2. Colorado River Water Quality Improvement Program
5. Dolores River Basin Runoff Model

NEW MEXICO
2. Colorado River Water Quality Improvement Program
6. Middle Rio Grande Water Conveyance Management Plan
7. Rio Grande\Low Flow Conveyance Channel Study

TEXAS
8. Rio Grande\Rio Bravo International Basin Assessment

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION

PROPOSED PROGRAM OF
GENERAL INVESTIGATIONS
F.Y. 1997
FEBRUARY 1996



MONTANA

1 *Yellowstone River Basin Study*

2 *Pallid Sturgeon Recovery Decision Support System, MT & ND*

3 ***JEFFERSON RIVER BASIN AGRICULTURAL RETURN FLOW STUDY***

4 ***MONTANA RIVER SYSTEM STUDY***

4A ***COLD CLIMATE WASTE WATER TREATMENT***

SOUTH DAKOTA

5 *Black Hills Regional Water Management Study.*

6 *Missouri River Basin Tribes Water Resource Management Plans, ND & SD.*

NORTH DAKOTA

6 *Missouri River Basin Tribes Water Resource Management Plans, ND & SD.*

COLORADO

7 ***UPPER ARKANSAS RIVER WATER NEEDS ASSESSMENT***

TEXAS

8 *Rincon Bayou – Nueces Marsh Wetlands Restoration/Enhancement Project*

9 *Edwards Aquifer Regional Water Resources and Management Study*

OKLAHOMA

10 *Oklahoma Water Supply Study*

KANSAS

11 ***CHENEY RESERVOIR WATER QUALITY***

NEBRASKA

12 *Nebraska Water Supply Assessment*

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
GREAT PLAINS REGION

Fig GI–1
PROPOSED PROGRAM OF GENERAL INVESTIGATIONS

FEBRUARY 1996

• ***STUDIES IN BOLD ARE PROPOSED NEW STARTS***

Carbon/Emery Counties Water Management Plan
Utah

Location The study will be located in Carbon and Emery Counties in central Utah.

Description This study will develop a model to evaluate water management plans and implementation strategies for a full range of needs in the study area which will include: 1) reducing turbidity in the Price River and its tributaries; 2) augmenting municipal and industrial water quality and quantity in Carbon County; 3) integrating salinity management strategies into overall watershed plans; 4) protecting water rights; 5) protecting critical reaches in streams; and 6) meeting instream flow requirements. The study will evaluate existing monitoring and control systems and make additions as required, develop a geographic information system model linked to an expert system and decision support software, and develop and evaluate potential management strategies.

Carbon County is short of municipal and industrial water. Both Carbon and Emery Counties have significant coal reserves, are major suppliers of electricity (coal-fired generation plants), and have tremendous recreation potential. Irrigated agriculture has historically been a stabilizing influence on the region's economy. The future of this two-county area is clearly linked to its water management strategies.

Two Bureau of Reclamation projects (Emery County and Scofield Projects) are key to future water management in the area. The study area is outside the boundaries of the Central Utah Water Conservancy District and should not conflict with any Central Utah Completion Act activities.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Fifty percent. Emery Water Conservancy district, Carbon Water Conservancy District, Utah State University, Utah Climate Center, and Utah Division of Water Resources.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 500,000	$ - 0 -	$ - 0 -	$100,000	$400,000
Non-Federal	500,000	- 0 -	- 0 -	100,000	400,000
Total program	$1,000,000	$ - 0 -	$ - 0 -	$200,000	$800,000

Cheney Reservoir Water Quality Investigation
Kansas

Location This study is located in south central Kansas watershed that drains into Lake Cheney Basin.

Description This study will investigate and mitigate potential sources of contamination entering Cheney Reservoir, a Reclamation facility, from the watershed of the North Fork Ninnescah River. The City of Wichita is heavily dependent on Cheney water for its municipal and industrial water supplies.

Locations of primary pollutant contributor sources will be identified through synoptic sampling at 35 sites in the study area. Chemical loading into and out of the reservoir and reservoir sediment quality will be determined. End product will be an interpretative report describing the chemical loads and areas of contribution.

Anticipated solutions are non-structural, e.g., changes in dam facilities operations.

Duration Initiation: FY 1997 Completion: FY 2001

Cost-sharing Fifty percent. City of Wichita.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 900,000	$ - 0 -	$ - 0 -	$100,000	$ 800,000
Non-Federal	900,000	- 0 -	- 0 -	100,000	800,000
Total program	$1,800,000	$ - 0 -	$ - 0 -	$200,000	$1,600,0000

Cold Climate Wastewater Treatment Study
Montana

Location This study is located at Montana State University in Bozeman, Montana, and selected Indian Reservations and Municipalities in the Yellowstone and Missouri River Basins in Montana.

Description This two-phase study will quantify and model the effects of a cold, semi-arid climate on the performance of vegetated subsurface (VSB) constructed wetlands for year-round use and develop process-based design criteria for these conditions.

Constructed wetlands are a promising low-cost alternative to traditional wastewater reclamation technology for municipal and domestic households wastewater systems. During Phase I, approximately two years, a fully functional bench-scale VSB system will be constructed at the MSU Plant Growth Center and assessment of wetland performances as a function of environmental conditions will be determined.

During Phase II, approximately two years, in cooperation with Montana Indian Tribes and the Montana Department of Health and Environmental Sciences, field scale wetland demonstration projects will be constructed at selected municipal plants and Indian reservation housing units/complexes to monitor performance and further refine design criteria based on field conditions. The demonstrations will encourage the reuse of wastewater to extend existing water supplies and improve water quality.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Forty Percent. Montana University, Montana Department of Health and Environmental Sciences, municipalities - 30 percent total. Indian Tribes - 10 percent total.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 875,000	$ - 0 -	$ - 0 -	$35,000	$ 840,000
Non-Federal	583,000	- 0 -	- 0 -	23,000	560,000
Total program	$1,458,000	$ - 0 -	$ - 0 -	$58,000	$1,400,0000

Delta Model Development Group
California

Location This study will be located in San Francisco Bay/Delta to include Contra Costa, Solano, Sacramento, and San Joaquin Counties.

Description This study is a cooperative effort among Reclamation, California Department of Water Resources, U. S. Geologic Survey, and the Contra Costa Water District. The study will develop, test, critique, and document Delta flow, salinity, and particle tracking models. The major goal of this group is to reach technical consensus for the delta's unsteady flow and transport model so a standard model can be developed.

The Central Valley Project (CVP) is dependent upon flow from the north to the south portion of the Delta where it is pumped. All CVP facilities and their operation affect the Bay/Delta aquatic environment by modifying flow timing, quality, and quantity. A feasible model is needed for improved management of both the CVP and State Water Project to meet the biologically based flow and quality requirements, and criteria/standards for the State's water users. An improved Bay/Delta model will result in better representation of the actual system and allow improved water management. The Delta is the key to the entire operation of the CVP. The Bay/Delta agreement and the State "Water Quality Control Plan" are designed to enhance the environment and improve water quality and meet the needs of the endangered species.

This group will develop a technically defensible model with sufficient spatial and temporal resolution. The model will become a tool for examining water alternatives and impacts in meeting Bay/Delta ecosystem requirements.

Duration Initiation: FY 1997 Completion: FY 2001

Cost-sharing Sixty-eight percent, California Department of Water Resources, the Contra Costa Water District, and the U.S. Geological Survey.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 490,000	$ - 0 -	$ - 0 -	$ 90,000	$ 400,000
Other Federal	1,000,000	- 0 -	- 0 -	200,000	800,000
Non-Federal	3,210,000	- 0 -	- 0 -	410,000	2,800,000
Total program	$4,700,000	$ - 0 -	$ - 0 -	$700,000	$4,000,000

Dolores River Basin Runoff Model
Colorado

Location The study is located in the Dolores River Basin in Montezuma County in southwestern Colorado.

Description The study will develop a method to more accurately forecast the volume and timing of runoff from the Dolores River Basin into McPhee Reservoir. The forecast will be used to benefit resources which depend on scheduled releases of water excess to the Dolores Project and at the same time avoid damage to other resources. These resources include: whitewater rafting, native fishery, endangered fish, and the riparian zone along the river.

The Dolores Project will soon reach full development and it is critical to the project water supply that the reservoir fills whenever possible. Water excess to the Dolores Project is released to the Dolores River below McPhee Dam in anticipation of spills during periods of high spring runoff. Current forecasts do not allow for precise scheduling of releases. A large population of roundtail chubs (a Federal candidate specie), endangered fish in the Colorado River, and the trout fishery below McPhee Dam are all affected by the release of excess water. The health of the riparian zone along the river is also dependent on management of the excess water.

Current reservoir operation is based on Natural Resource Conservation Service runoff forecasts. These forecasts are adequate to safely fill the reservoir, but do not provide the accuracy necessary to manage releases to optimize downstream resources.

Duration Initiation: FY 1997 Completion: FY 1999

Cost-sharing Fifty percent. Dolores Water Conservancy District, Montezuma Valley Irrigation Company, and the State of Colorado.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$225,000	$ - 0 -	$ - 0 -	$ 75,000	$150,000
Non-Federal	225,000	- 0 -	- 0 -	75,000	150,000
Total program	$450,000	$ - 0 -	$ - 0 -	$150,000	$300,000

Friant Upper Basin Optimization Study
California

Location	This study is located in the San Joaquin Basin above Friant Dam, Friant Division, Central Valley Project which include the Counties of Madera and Fresno in central California.

Description This appraisal level study will determine the practicality of revised system operation above Millerton Lake to provide additional environmental instream flow releases below Friant Dam.

The Central Valley Project Improvement Act mandates use of existing facilities to restore and enhance fish and wildlife. The Friant project diverts the majority of the San Joaquin River flows for irrigation. The only instream flow release is to satisfy downstream riparian irrigation diversions. This has resulted in a degraded riverine and riparian environment.

Millerton Reservoir has a small storage capacity compared to inflow resulting in a small carryover storage. The upstream reservoirs have approximately the same total storage capacity as Millerton Reservoir. Due to this comparatively large upstream storage capacity, the upstream reservoirs have a significant impact on Friant storage and flow regulation. Coordination of their storage and releases could be the most environmentally sound and least expensive opportunity to make water available for instream flows below Friant with minimal impact on the irrigators.

Needs and opportunities for improved coordination of upstream system operations with Friant operations to achieve improved environmental releases will be documented. The study outcome will be an appraisal level report identifying these needs and opportunities, the level of local support, and the potential of increasing instream flows downstream of Friant Dam through the coordinated management of upstream reservoir operation with Friant Dam operation.

Duration Initiation: FY 1997 Completion: FY 1998

Cost-sharing None.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$100,000	$ - 0 -	$ - 0 -	$75,000	$25,000
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$100,000	$ - 0 -	$ - 0 -	$75,000	$25,000

Hopi Water Management Study
Arizona

Location This study is located on the Hopi Indian Reservation in Coconino and Navajo Counties in northern Arizona.

Description The study covers six major washes on the Hopi Reservation which are dry most of the year, with over 80 percent of the stream flow occurring during the summer months. Shallow aquifers underlying the reservation yield small quantities of groundwater. However, increased water withdrawals associated with population growth and economic development will eventually deplete supplies in areas where the aquifer is thin and marginally producing. At least three of the twelve Hopi villages could be impacted within the next 20 years.

The focus of the water management study will be to evaluate how to better manage existing water supplies for agricultural, cultural, and religious purposes. Activities will include evaluating drought management options, groundwater storage capability and options for banking and conjunctive use, and potential for diversions from washes.

The Federal Government has trust responsibilities for Indian tribes as set forth in various treaties, statutes, and court decisions. The Hopi Tribe is seeking Public Law 93-638 (Indian Self Determination, Education and Assistance Act) contract responsibility from the BIA and is assuming responsibility for planning of their own resources. As such, they are in need of expertise to help develop their own capability.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Ten percent. Hopi Tribe.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimated FY 1997	Balance to complete
Reclamation	$ 900,000	$ - 0 -	$ - 0 -	$80,000	$820,000
Non-Federal	100,000	- 0 -	- 0 -	11,000	89,000
Total program	$1,000,000	$ - 0 -	$ - 0 -	$91,000	$909,000

Jefferson River Basin Agricultural Return Flow Study
Montana

Location This study is located in southwestern Montana within the Jefferson River Basin.

Description This study will examine Reclamation's East Bench Unit, P-S MBP, and strategically located State/private irrigation projects in the basin to define the water budget for existing irrigated agriculture and determine the effects of irrigation return flows on the non-irrigation season hydrograph.

Study data and information will assist Reclamation, it's customers, and the State in determining best management practices in the basin in order to mitigate conflicting demands between water rights, irrigation, and instream fishery needs.

The end product will be a special report containing the accrued data and analyses thereof, and outlining water management practices and strategies that will benefit all major uses of available water throughout the entire year.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Fifty percent. Montana Department of Natural Resources and Conservation.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$400,000	$ - 0 -	$ - 0 -	$ 80,000	$320,000
Non-Federal	400,000	- 0 -	- 0 -	80,000	320,000
Total program	$800,000	$ -0 -	$ - 0 -	$160,000	$640,000

Lower Owens River Study
California

Location This study is located in Inyo County in east central California.

Description Diversion of water flow from the Owens River to the city of Los Angeles has degraded the river's biological resources. Inyo County and the city of Los Angeles are interested in restoring the biological integrity of the lower 50 miles of the Owens River. Restoration of the lower river basin would require increasing and stabilizing instream flows and optimizing the river's distribution of water. Primary objectives are to restore native riparian vegetation, restore habitat for indigenous and migratory birds, restore and create backwaters, and create warmwater fisheries.

The study will result in a report which will compare alternatives which will include conceptual designs of the study area, estimates of instream flow and surface and groundwater elevations, predicted distribution of restored wetland and riparian plant communities, and conceptual designs of water control structures.

Federal responsibilities relating to this project include environmental restoration, wetlands, and migratory birds. The river has been the focal point of conflicting State, County, and City interests. Reclamation is an active participant in implementing the North American Waterfowl Management Plan. The primary objective of the Plan is to restore the abundance and distribution of North america's waterfowl and the wetland habitat on which it depends. Reclamation can plan a major role in attaining this objective by helping to restore the wetland habitat along the lower Owens River, habitat that is vital to western North America's waterfowl and other migratory birds.

Duration Initiation: FY 1997 Completion: FY 1999

Cost-sharing Fifty Percent. Inyo County Water Department, California Department Fish and Game, California Department Water Resources, Los Angeles Department Water and Power.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$300,000	$- 0 -	$- 0 -	$100,000	$200,000
Non-Federal	300,000	- 0 -	- 0 -	100,000	200,000
Total program	$600,000	$- 0 -	$- 0 -	$200,000	$400,000

Middle Rio Grande Water Conveyance Management Plan
New Mexico

Location The study is located in the Rio Grande valley in central New Mexico.

Description The study will develop a water conveyance management plan for the area served by the Middle Rio Grande Conservancy District (MRGCD). More efficient operation of the distribution and drainage system will conserve water and facilitate management decisions.

MRGCD is responsible for delivering irrigation water and providing drainage to a section of the Rio Grande valley extending approximately 140 miles from Cochiti Dam to the Bosque del Apache National Wildlife Refuge in central New Mexico. The area served and benefitted includes metropolitan Albuquerque, five Indian Pueblos, extensive agricultural lands, rural residential areas, and five game and wildlife refuges. Changes in the social, economic, and political context, in addition to listing of the Rio Grande silvery minnow as an endangered species, has set new parameters on water management and water operations and has created a need for MRGCD to improve management of its water resources.

Reclamation is responsible, under the Middle Rio Grande Project, for promoting efficient delivery of water through the Middle Rio Grande valley to ensure delivery of water to Mexico and to assist the State of New Mexico in meeting its Rio Grande Compact obligations. A plan for improved operation of the MRGCD system will assist in meeting the overall objective of maximizing downstream deliveries by conserving water within MRGCD.

Duration Initiation: FY 1997 Completion: FY 1998

Cost-sharing Fifty percent. Middle Rio Grande Water Conservancy District and the State of New Mexico.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$200,000	$ - 0 -	$ - 0 -	$100,000	$100,000
Non-Federal	200,000	- 0 -	- 0 -	100,000	100,000
Total program	$400,000	$ - 0 -	$ - 0 -	$200,000	$200,000

Montana River Systems Study
Montana

Location This study will focus on selected river basins in Montana.

Description This study is a cooperative effort between Reclamation, Indian tribes, and the State of Montana that will focus on the long-term sustainability of communities, ecosystems, watersheds, and existing irrigation facilities in the Missouri River Basin Drainage in Montana. The purpose of these studies is to develop and implement sustainable and cost-effective watershed and ecosystem-based management strategies where Government agencies and other affected interests are encouraged to cooperate.

Many of the rivers and tributary streams do not have enough streamflows to meet critical instream needs during portions of the year. Conservation of water supplies and improved management of existing water uses is needed to address watershed needs.

Local reclamation projects, which are predominantly irrigation developments, in the Bitterroot, Flathead, Blackfoot, and upper Clark Fork River basins, will be impacted. The volume of water now regulated and managed cannot meet traditional and contemporary demands. Improved management of existing water uses offers an efficient and effective way to meet demands. Reclamation would facilitate the formulation of workable conservation programs and provide expertise in the areas of hydrology and engineering.

Duration Initiation: FY 1997 Completion: FY 2001

Cost-sharing Fifty percent. Montana Department of Natural Resources and Conservation, other Montana agencies and local interests.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,275,000	$ - 0 -	$ - 0 -	$150,000	$1,125,000
Non-Federal	1,275,000	- 0 -	- 0 -	150,000	1,125,000
Total program	$2,550,000	$ - 0 -	$ - 0 -	$300,000	$2,250,000

Mystic Lake Watershed Management Investigation
California

Location This study is located on the San Jacinto River in southern California, Riverside County in the vicinity of Mystic Lake and other downstream lakes.

Description Mystic Lake is an existing shallow lake that includes wetlands which are declining due to competing demands for water supplies and urban development. Eastern Municipal Water District has proposed to use reclaimed water during off peak demand times to expand the wetlands. During peak demand times, the reclaimed water is currently used for agricultural irrigation. The reclaimed water will provide a reliable water supply, thus enhancing the habitat, while the wetlands provide natural treatment for the reclaimed water. During storm events, Mystic Lake could provide 15,000 acre feet of flood retention storage. Another aspect involves the potential for supplementing groundwater supply for the Soboba Indian Tribe. These options need to be explored while addressing the long-term health effects and water quality impacts to ground and surface water supplies.

This study will review current practices and investigate ways to develop a management strategy to preserve and enhance critical habitat in an area of rapid urban development. The strategy could improve water quality of surface and groundwater supplies, while expanding the wetlands of Mystic Lake which is considered a critical habitat for the North American Flyway for migratory waterfowl. The goal is a watershed management plan addressing the environmental and health effects of utilizing reclaimed water to supply and enhance the wetlands of Mystic Lake while improving the existing surface and groundwater supplies.

The watershed management strategy will impact two water districts and the Soboba Indian Tribe, provide a reliable water supply to enhance existing wetlands which benefit migratory waterfowl, and improve the water quality and supplement surface and groundwater supplies. The districts do not have the resources to thoroughly investigate the alternatives and full impacts of the basin watershed management strategy. In addition, Federal participation will facilitate a balance of needs among the water districts and other water users, land owners and environmental interests. This area of California is dependent on imported water supplies from Reclamation projects.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Fifty Percent. Eastern Municipal Water District

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 550,000	$ - 0 -	$ - 0 -	$100,000	$450,000
Non-Federal	550,000	- 0 -	- 0 -	100,000	450,000
Total program	$1,100,000	$ - 0 -	$ - 0 -	$200,000	$900,000

Navajo Water Management Study
Arizona

Location This study is located on the Navajo Indian Reservation in the northeast part of Arizona.

Description The Navajo Nation, located within the heart of the Colorado Plateau, is approximately 27,543 square miles. A severe environment with cold winters, hot summers, scant rainfall and high evaporation rates has provided the Navajo people with only a subsistence economy for the past century. Inadequate water supply has directly resulted in reduced economic development and associated employment opportunities. The Navajo Nation is now taking steps to diversify its economy to provide income for its people. All options to diversify require water resources to be identified, protected, and managed if they are to succeed.

Reclamation will help the Navajo Nation develop a process and strategy for dealing with water resource issues. Development of a Water Management Strategy will address water resource issues and needs. The strategy would outline goals and objectives, strategies and tasks, schedule, and funding sources. To protect and manage the water resources on the Nation, the strategies identified will address groundwater management, rural water supply issues, operation and maintenance of wells, drought management, wetland enhancement, and wastewater treatment and reuse.

The Federal government has trust responsibilities for Indian tribes as set forth in various treaties, statutes, and court decisions. The Navajo Nation is seeking Public Law 93-638 (Indian Self Determination, Education, and Assistance Act) contract responsibility from the BIA and is assuming responsibility for planning their own resources. As such, they are in need of expertise to help develop their own capability.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Ten percent. Navajo Nation

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 900,000	$ - 0 -	$ - 0 -	$100,000	$800,000
Non-Federal	100,000	- 0 -	- 0 -	20,000	80,000
Total program	$1,000,000	$ - 0 -	$ - 0 -	$120,000	$880,000

New Melones Temperature Control Evaluation
California

Location This evaluation is located in the Stanislaus River Watershed and New Melones Dam and Lake, East Side Division of the Central Valley Project, in Stanislaus, Calaveras, San Joaquin, and Tuolumne Counties in central California.

Description The objective of the investigation is to determine means for meeting current water supply obligations and commitments for New Melones Reservoir while providing for environmental enhancement water quality improvement in the Stanislaus River Watershed.

This investigation supports environmental restoration and enhancement in a watershed downstream of New Melones Dam and Reservoir, a Reclamation facility. In recent years Reclamation has been unable to meet its fishery, water quality, and water supply needs from the Stanislaus River. Without satisfactory resolution of temperature and water supply issues, Reclamation may be subject to adverse litigation and additional public controversy. In addition, Reclamation may be unable to meet its agency responsibilities associated with the Bay-Delta agreements using flows from New Melones Reservoir.

This appraisal investigation will complete analysis of operational capability and flexibility, evaluation of additional temperature control measures, and benefits and impacts associated with improved water temperature downstream of New Melones Dam. Attention will also be given to reservoir fishery resources and potential impacts. The investigation will result in an appraisal level planning report containing nonstructural and structural alternatives for achieving additional water temperature control, operations criteria, and economic and impact analyses.

Duration Initiation: FY 1997 Completion: FY 1997

Cost-sharing None.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$90,000	$ - 0 -	$ - 0 -	$90,000	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$90,000	$ - 0 -	$ - 0 -	$90,000	$ - 0 -

Ogden River Basin Water Quality Management Investigation
Utah

Location The study will be located in the Ogden River Basin in northern Utah.

Description The study will develop a computer based decision management system model and monitoring plan to be used for water quality and reservoir management. The study will build upon the Weber River Basin Water Quality Study results to provide complete simulation capability of the Ogden and Lower Weber River basin.

The city of Ogden obtains a portion of its water supply from Reclamation's Pineview Reservoir on the Ogden River. The city's municipal water system experiences taste and odor problems when high levels of dissolved organic material are present. Weber Basin Water managers plan to build a treatment plant which will receive water from Willard Bay and the Ogden and Lower Weber Rivers. These water sources all have pollution problems which are difficult to treat and will not meet Environmental Protection Agency Drinking Water Standards. Additional water quality data will be collected to verify the model and to evaluate management alternatives to improve the quality and usability of water.

The study area is outside the boundaries of the Central Utah Water Conservancy District and should not conflict with any Central Utah Completion Act activities.

Duration Initiation: FY 1997 Completion: FY 2000

Cost-sharing Fifty percent. Weber Basin Water Conservancy District, Weber Basin Water Quality Management Council, City of Ogden, and Utah State University.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$450,000	$ - 0 -	$ - 0 -	$ 50,000	$400,000
Non-Federal	450,000	- 0 -	- 0 -	50,000	400,000
Total program	$900,000	$ - 0 -	$ - 0 -	$100,000	$800,000

Southern Arizona Regional Water Management Study
Arizona

Location This study is located in Pima County in southern Arizona.

Description The purpose of this study is to assist Tucson area water providers in developing a comprehensive water management plan for the Tucson basin. A primary objective is to integrate the planning efforts of various local entities in order to identify long-range needs and match them with available supplies. The study effort will involve the identification of existing data, determination of additional data requirements, and collection of data for use in developing long-term water management strategies. The final product of the study would be a comprehensive water management plan.

Central Arizona Project (CAP) water was first introduced into the Tucson area in late 1992. Problems experienced during initial deliveries have led to a reassessment of local plans for using CAP water and of the relationship among various local water providers. The Tohono O'odham Nation (Nation) has not determined how to fully utilize water supplies received under the Southern Arizona Water Rights Settlement Act. The City of Tucson, Pima County, the Nation, the Pascua Yaqui Tribe, and various entities in northwest Tucson have embarked on individual studies and projects. However, no overall planning coordination has occurred that would integrate CAP supplies with groundwater and effluent throughout the Tucson basin.

With Federal assistance, the various municipal and Indian water providers will be brought together to cooperate on developing efficient water management strategies. The study involves water management through improved efficiency of existing facilities, coordination with urban water providers, development of Indian water supplies, and potential environmental enhancement.

Duration Initiation: FY 1997 Completion: FY 1999

Cost-sharing Fifty Percent. Arizona Department of Water Resources, Pima County, City of Tucson, and other state and local entities

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 500,000	$ - 0 -	$ - 0 -	$150,000	$350,000
Non-Federal	500,000	- 0 -	- 0 -	150,000	350,000
Total program	$1,000,000	$ - 0 -	$ - 0 -	$300,000	$700,000

Umatilla Basin Project, Phase III

Oregon

Location This study is located in the Umatilla Basin Project in northeastern Oregon.

Description This investigation will evaluate the potential for modifying and expanding Reclamation's existing Umatilla Basin Project to provide additional flows in the Umatilla River for anadromous fish through a water exchange with Westland Irrigation District. This study is supported by the Confederated Tribes of the Umatilla Indian Reservation, environmental groups, State and local officials, and members of the congressional delegation.

Instream flow needs for resident and anadromous fish habitat have been identified in the Umatilla Basin. The authorized Umatilla Basin Project through its two phases of development will meet some, but not all of those needs, especially in dry periods such as experienced since authorization. The anadromous fish are Indian trust assets of the Confederated Tribes of the Umatilla Indian Reservation, and Reclamation has a trust responsibility to sustain these assets. An additional 90 cfs of exchange capability would allow for a large portion of Westland Irrigation District to be served from the Columbia River allowing a part of their natural flows and stored water right to be used for anadromous fish flows in the Umatilla River.

Reclamation undertook a comprehensive program (the Umatilla Basin Project authorized by Public Law 100-557) in 1988 to restore the Umatilla River habitat with water exchanges from the Columbia River. Phase III would become an integral portion of exchanging Columbia River water for flows to be left in the Umatilla River. The study will be done under authority of Public Law 89-561.

A planning report/environmental assessment that evaluates the existing system and quantifies the construction costs and designs of additional facilities needed to provide Columbia River water to the Westland Irrigation District will be prepared.

Duration Initiation: FY 1997 Completion: FY 1999

Cost-sharing Fifty percent. Westland Irrigation District and Bonneville Power Administration.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$275,000	$ - 0 -	$ - 0 -	$100,000	$175,000
Non-Federal	275,000	- 0 -	- 0 -	100,000	175,000
Total program	$550,000	$ - 0 -	$ - 0 -	$200,000	$350,000

Upper Arkansas River Needs Assessment
Colorado

Location This study is located in central Colorado in the Upper Arkansas River basin upstream of Pueblo Dam and Reservoir.

Description This study will collaboratively develop and provide information and data about resource values, water use and operational constraints, and water management opportunities to the administrators of the State and Federal entities with land and water responsibilities in the upper basin. Due to a significant increase in recreational activities on the river, there have been increasing conflicts among differing recreational activities. This has complicated Reclamation's reservoir operations in the upper basin and delivery of water supplies for downstream agricultural and municipal and industrial use.

End product will be a multi-agency report containing data and information that will aid in improving the understanding of the relationships between streamflow, reservoir operations, and the resource values they affect.

Anticipated solutions are non-structural, e.g., modification of existing operating criteria for Reclamation's Fryingpan-Arkansas Project.

Duration Initiation: FY 1997 Completion: FY 1999

Cost-sharing Fifty percent. Colorado Department of Natural Resources.

Summarized Financial Data

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$200,000	$ - 0 -	$ - 0 -	$100,000	$100,000
Non-Federal	200,000	- 0 -	- 0 -	100,000	100,000
Total program	$400,000	$ - 0 -	$ - 0 -	$200,000	$200,000

GENERAL INVESTIGATIONS

ONGOING PROJECTS/STUDIES

American River/Folsom South Conjunctive Use Optimization Study

California

Description This conjunctive use study evaluates plans for concurrent surface and groundwater use from existing storage developments at Folsom, Pardee, Comanche, and other tributary streams to meet the area water needs and provide suitable instream flows and recreation purposes in the Stanislaus River.

Duration Initiation: FY 1991 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 856,317	$ 820,928	$35,389	$ - 0 -	$ - 0 -
Non-Federal	2,150,000	2,150,000	- 0 -	- 0 -	- 0 -
Total program	$3,006,317	$2,970,928	$35,389	$ - 0 -	$ - 0 -

Ashley/Brush Creeks Optimization Study

Utah

Description The study is developing a plan to more effectively utilize existing water supplies on Ashley and Brush Creeks through regional operation. A special report will recommend an operating scenario to maximize benefits with minimal construction.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$475,000	$ - 0 -	$ 75,000	$200,000	$200,000
Non-Federal	475,000	- 0 -	75,000	200,000	200,000
Total program	$950,000	$ - 0 -	$150,000	$400,000	$400,000

The total estimated cost remains the same, however, the study has been extended one year due to revised funding schedule.

Bear River Basin Water Quality/Watershed Management Study
Idaho, Utah, Wyoming

Description The study is assisting the States of Utah, Idaho, and Wyoming and local governments, and water districts in identifying and evaluating sources of pollution and non-structural or minor structural measures that could be implemented to restore water quality in the lower reaches of the Bear River and preserve water quality in the upper reaches.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$363,729	$229,729	$134,000	$ - 0 -	$ - 0 -
Non-Federal	450,000	369,000	81,000	- 0 -	- 0 -
Total program	$813,729	$598,729	$215,000	$ - 0 -	$ - 0 -

Black Hills Regional Water Management Study
South Dakota

Description The purpose of this study is to assist the State with the development of a water management plan for the Black Hills region, including operation of Reclamation facilities in the region, to better meet contemporary water needs. No new project authorization is anticipated.

Duration Initiation: FY 1993 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 725,000	$292,086	$150,000	$ 75,000	$207,914
Non-Federal	725,000	300,000	150,000	75,000	200,000
Total program	$1,450,000	$592,086	$300,000	$150,000	$407,914

The total estimated cost increased $538,000 and the completion date extended three years due to an underestimate of the coordination and involvement required among the non-Federal study partners.

Carlton Lake Restoration
Oregon

Description The objective of this investigation is to formulate a plan to reestablish Carlton Lake and its associated wetlands for migratory waterfowl use and as an environmental education resource.

Duration Initiation: FY 1995 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$351,000	$300,000	$ 51,000	$ - 0 -	$ - 0 -
Non-Federal	351,000	251,000	100,000	- 0 -	- 0 -
Total program	$702,000	$551,000	$151,000	$ - 0 -	$ - 0 -

Central Oregon Irrigation System Conservation Project Feasibility Study
Oregon

Description The Upper Deschutes River Basin Water Conservation Project study identified several feasible conservation actions that would help to expand the uses of available water supplies from irrigation system conservation measures. This study will examine the most promising potential actions at a feasibility level. The Study will conclude with a planning report/environmental statement. Canal lining and canal system reregulating facilities are the most likely recommended structural options.

Duration Initiation: FY 1995 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 900,000	$ 75,000	$200,000	$250,000	$375,000
Non-Federal	900,000	100,000	200,000	250,000	350,000
Total program	$1,800,000	$175,000	$400,000	$500,000	$725,000

Ongoing Projects . . . .

Colorado River Water Quality Improvement Program
Arizona, California, Colorado, Nevada, New Mexico, Utah, Wyoming

Description The purpose of this investigation is to develop a comprehensive, basinwide approach to reduce salinity where it can be inexpensively controlled before entering the river. Salinity control costs less than $100 per ton while salinity treatment costs for the end users in Santa Ana, California, are over $2,000 per ton. The program will identify easily controlled sources, develop alternative control plans, and recommend remedial actions, if appropriate and cost effective.

The 1997 program includes: Salinity Model Support ($50,000), Program Verification/Monitoring/Evaluation ($80,000), Program Management ($80,000), Las Vegas Wash ($50,000), and Basinwide "New Format" ($100,000).

Duration Initiation: FY 1972 Completion: Ongoing

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$58,913,987	$56,221,966	$472,021	$360,000	$1,860,000
Non-Federal	198,808	198,808	- 0 -	- 0 -	- 0 -
Total program	$59,112,795	$56,420,774	$472,021	$360,000	$1,860,000

The total estimated cost has been reduced due to the completion of two major studies (the Price-San Rafael Feasibility Study and the San Juan Hammond Feasibility Study) and the efficiency gained by consolidating the coordination and management roles of several offices into one.

Del Norte County/Crescent City Wastewater Reclamation Study
California

Description This study will focus on identifying and analyzing alternative solutions to the inadequacy of the current wastewater treatment facilities in the community. The current facility capacity does not allow for sufficient wastewater treatment.

Duration Initiation: FY 1996 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$300,000	$ - 0 -	$300,000	$ - 0 -	$ - 0 -
Non-Federal	*	- 0 -	*	- 0 -	- 0 -
Total program	$300,000	$ - 0 -	$300,000	$ - 0 -	$ - 0 -

* Cost-sharing arrangements are being reviewed between the Bureau and local entities.

Drought Investigations
Various States

Description Continue efforts to establish drought indices for States and local entities in order to anticipate future droughts and prepare drought contingency plans to be implemented.

Duration Initiation: FY 1991 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$533,019	$476,385	$56,634	$ - 0 -	$ - 0 -

Edwards Aquifer Regional Water Resources and Management Study
Texas

Description The purpose of this study will be to analyze multipurpose water supply problems and needs and to develop, update, and formulate alternatives for meeting future demands while reducing the dependence on the Edwards Aquifer.

Duration Initiation: FY 1994 Completion: FY 1997

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 896,459	$445,459	$261,000	$190,000	$ - 0 -
Non-Federal	830,000	400,000	240,000	190,000	- 0 -
Total program	$1,726,459	$845,459	$501,000	$380,000	$ - 0 -

Ongoing Projects . . . .

Environmental and Interagency Coordination Activities
17 Western States

Description Funds will be utilized to accomplish various Administration initiatives concerning water resources planning standards, coordination with other Federal and State agencies, review of other agency reports, negotiations and public hearings, information for public groups, participation on State and Federal study teams, etc. Funding in the amount of $88,000 has been included to fund Reclamation's participation in activities related to implementation of the North American Free Trade Agreement (NAFTA).

Duration Ongoing

Funding The estimated funding for FY 1997 is $1,745,000 which is an increase of $550,000 from FY 1996.

Fort Bragg Water Reclamation Study
California

Description This study will focus on identifying and analyzing alternative solutions to the lack of adequate water supplies in summer and fall months. Alternatives will include groundwater and the use of desalinization.

Duration Initiation: FY 1996 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$500,000	$ - 0 -	$500,000	$ - 0 -	$ - 0 -
Non-Federal	*	- 0 -	*	- 0 -	- 0 -
Total program	$500,000	$ - 0 -	$500,000	$ - 0 -	$ - 0 -

* Cost-sharing arrangements are being reviewed between the Bureau and local entities.

Fort Peck Indian Reservation Municipal Rural and Industrial Water Study

Montana

Description The purpose of this study is to develop and evaluate alternative solutions to the water supply and water quality needs on the Fort Peck Indian Reservation, and produce a preferred plan which will be forwarded to Congress for their consideration and possible authorization of Reservation-wide rural water system.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$408,356	$393,356	$15,000	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$408,356	$393,356	$15,000	$ - 0 -	$ - 0 -

General Planning Studies

Various States

Description Funds will be used for: review and development of planning program policies; preparation, revision, and issuance of technical guidelines for conducting the technical phases of resources planning; guidance for evaluation of operational changes and environmental restoration programs on existing projects; participation in special studies requested by other natural resource agencies and management overview of these activities; and review and preparation of plans of study and cost-sharing agreements on proposed investigations.

Duration Ongoing

Funding The estimated funding for FY 1997 is $1,985,000 which is an increase of $419,000 over FY 1996.

Ongoing Projects . . . .

Grand Valley Project Water Conservation Study
Colorado

Description The study is quantifying the amount and distribution of water lost through inefficient water operations (operational waste) that can be salvaged and to developing implementation plans for the utilization of this water resource.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$163,366	$111,366	$ 52,000	$ - 0 -	$ - 0 -
Non-Federal	163,000	113,000	50,000	- 0 -	- 0 -
Total program	$326,366	$224,366	$102,000	$ - 0 -	$ - 0 -

Grande Ronde Water Optimization Study
Oregon

Description This study is evaluating measures to enhance streamflows and improve water quality through watershed and riparian improvements, water conservation, and offstream storage development as part of a multi-party effort to improve habitat for endangered and threatened salmon runs in the Grande Ronde and Snake River Basins.

Duration Initiation: FY 1991 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 996,000	$ 496,000	$200,000	$150,000	$150,000
Non-Federal	1,000,000	550,000	100,000	200,000	150,000
Total program	$1,996,000	$1,046,000	$300,000	$350,000	$300,000

The total estimated cost increased $662,000 and the completion date extended two years because Reclamation is entering into a new phase of the study. The study now requires more detailed hydrology analysis and additional coordination with the State, watershed council, and Nez Perce Tribe than originally anticipated.

Idaho River Systems Management
Idaho

Description Reclamation is participating with the Idaho Department of Water Resources to adopt and implement comprehensive plans for conservation, development, management, and use of water within the State's river basins. Reclamation projects are located in the major river basins.

Duration Initiation: FY 1991 Completion: FY 2000

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,900,000	$ 650,000	$100,000	$250,000	$ 900,000
Non-Federal	1,950,000	700,000	100,000	250,000	900,000
Total program	$3,850,000	$1,350,000	$200,000	$500,000	$1,800,000

The total estimated cost increased $1,891,000 and the completion date extended 2 years due to unanticipated requirements for hydrologic model development, environmental and economic impact analyses, and engineering designs for conservation measures. The increases reflect the State's emphasis on resolving water management conflicts in accordance with the State Water Plan.

Imperial Valley Water Reclamation and Reuse Study
California

Description The study will develop plans to improve the water quality degradation in Imperial Valley drains and the Salton Sea which cause deteriorating conditions for endangered species and wildlife using the Salton Sea National Wildlife Refuge. Preservation of recreation, fish and wildlife, and aesthetic values of the Salton Sea are included.

Duration Initiation: FY 1995 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 500,000	$- 0 -	$250,000	$175,000	$ 75,000
Non-Federal	500,000	- 0 -	175,000	175,000	150,000
Total program	$1,000,000	$- 0 -	$425,000	$350,000	$225,000

Ongoing Projects . . . .

Investigation of Existing Projects
17 Western States

Description Reclamation, working closely with the water users and other entities, will survey existing water resource projects to determine the viability for two types of improvements: (1) remedial action to modify, replace or repair features on older projects, thereby conserving water; and (2) possible operational adjustments of existing projects to increase benefits and purposes.

Duration Ongoing

Funding The estimated funding for FY 1997 is $705,000 which is an increase of $282,000 from FY 1996.

Kansas Comprehensive Investigation
Kansas

Description The State of Kansas, the Bureau's cost-sharing partner, has reevaluated the merits of this investigation. A decision was made by the State not to fund this study. The FY 1996 Federal funding for this study will be moved to other higher priority work.

Duration Initiation: FY 1996 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$75,000	$ - 0 -	$ 75,000	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$75,000	$ - 0 -	$ 75,000	$ - 0 -	$ - 0 -

Lower Colorado River Regulatory Storage
California

Description This study will address the potential for reducing or eliminating the amount of water that is being lost to the United States through inadvertent releases to Mexico in excess of treaty obligations.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$299,999	$216,999	$83,000	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$299,999	$216,999	$83,000	$ - 0 -	$ - 0 -

Lower Rio Grande Basin Study
Texas

Description This study deals with issues of water supply, water quality, groundwater management, and toxic cleanup and is a cooperative effort with the Environmental Protection Agency, U.S. Fish and Wildlife Service, the State of Texas, and the water user groups.

Duration Initiation: FY 1992 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 684,879	$ 610,879	$74,000	$ - 0 -	$ - 0 -
Non-Federal	609,000	609,000	- 0 -	- 0 -	- 0 -
Total program	$1,293,879	$1,219,879	$74,000	$ - 0 -	$ - 0 -

Ongoing Projects . . . .

Middle Rio Grande Water Assessment/Management Study
New Mexico

Description The study is coordinating existing studies being conducted by several governmental entities involved in the assessment, planning, development, management, regulation, and protection of the Middle Rio Grande River Basin.

Duration Initiation: FY 1995 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 575,887	$ 569,887	$6,000	$ - 0 -	$ - 0 -
Non-Federal	575,000	575,000	- 0 -	- 0 -	- 0 -
Total program	$1,150,887	$1,144,887	$6,000	$ - 0 -	$ - 0 -

Minor Work in Connection with Completed Project Investigations
17 Western States

Description After project studies have been completed, reports must be submitted to the State and other Federal agencies for review. During this review process it will be necessary to perform additional work on some of those investigations. Reformulation or reevaluation of plans is required for some proposals to reflect changes in planning criteria. It is not possible, however, to predict the amount of additional work required.

Duration Ongoing

Funding The estimated funding for FY 1997 is $145,000 which is an increase of $46,000 from FY 1996.

Missouri River Basin Tribes in North and South Dakota Water Resource Management Plans

North and South Dakota

Description The purpose of this study is to assist the Tribes with the evaluation of their water resources and development of management plans relative to the use of tribal water resources on the respective Reservations.

Duration Initiation: FY 1994 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,250,000	$359,946	$250,000	$250,000	$390,054
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$1,250,000	$359,946	$250,000	$250,000	$390,054

Musselshell River Management Plan

Montana

Description The purpose of the study is to develop a water management plan for the Musselshell River Basin to alleviate water supply shortages and enhance fish and wildlife and recreation through more efficient utilization of the existing water supply.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$240,862	$211,862	$29,000	$ - 0 -	$ - 0 -
Non-Federal	210,000	210,000	- 0 -	- 0 -	- 0 -
Total program	$450,862	$421,862	$29,000	$ - 0 -	$ - 0 -

Ongoing Projects . . . .

Nebraska Water Supply Assessment

Nebraska

Description This study would be a cooperative effort to provide the State reconnaissance level technical and economic analyses on the extent of possible water supply problems due to groundwater quality contamination with nitrates and pesticides for domestic and small community use.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$300,000	$ - 0 -	$ 75,000	$100,000	$125,000
Non-Federal	300,000	- 0 -	75,000	100,000	125,000
Total program	$600,000	$ - 0 -	$150,000	$200,000	$250,000

The total estimated cost has not changed, but the study has been extended one year due to revised funding schedule.

Northwest Oregon Regional Water Supply Study

Oregon

Description This study will identify the means for a number of small communities to meet a major portion of their municipal and industrial water supply needs through an integrated regional system. It will also identify means of enhancing anadromous fish runs in the Columbia River tributaries and improving water quality in affected streams.

Duration Initiation: FY 1994 Completion: FY 1997

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 878,000	$378,000	$300,000	$200,000	$ - 0 -
Non-Federal	880,000	405,000	310,000	165,000	- 0 -
Total program	$1,758,000	$783,000	$610,000	$365,000	$ - 0 -

The total estimated cost increased $109,000 due to additional evaluation of spotted owl habitat, evaluation of a potential new option to provide water from existing storage, and additional detailed design related to a conveyance system.

Oklahoma Water Supply Systems
Oklahoma

Description This investigation will provide an analysis of the McGee Creek Project's capability to provide additional, dependable, good-quality water to small towns and rural areas in central and east central Oklahoma, including service to Native Americans.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$375,000	$ - 0 -	$ 75,000	$125,000	$175,000
Non-Federal	375,000	- 0 -	75,000	125,000	175,000
Total program	$750,000	$ - 0 -	$150,000	$250,000	$350,000

The total estimated cost remained the same, however; the completion date has been extended one year due to revised funding schedule.

Oregon Stream Restoration Planning Study
Oregon

Description Reclamation is cooperating in facilitating and technical roles with the State of Oregon, other Federal/State agencies, and local groups in a broad-based effort to identify and evaluate measures to achieve stream restoration.

Duration Initiation: FY 1993 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 944,000	$484,000	$160,000	$150,000	$150,000
Non-Federal	950,000	500,000	150,000	150,000	150,000
Total program	$1,894,000	$984,000	$310,000	$300,000	$300,000

The total estimated cost increased $258,000 to provide for collection of additional data on watershed hydrology to identify restoration opportunities in several additional watersheds in Oregon.

Ongoing Projects . . . .

Oregon Subbasin Conservation Planning
Oregon

Description Reclamation is cooperating with the State of Oregon and local irrigators to develop model subbasin irrigation conservation plans to bring irrigation and environmental interests together.

Duration Initiation: FY 1993 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 887,000	$477,000	$210,000	$100,000	$100,000
Non-Federal	920,000	500,000	220,000	100,000	100,000
Total program	$1,807,000	$977,000	$430,000	$200,000	$200,000

Owyhee Project Storage Optimization Study
Oregon

Description This study will determine the feasibility of raising the crest of existing Owyhee Dam to provide an additional 70,000 to 80,000 acre-feet of storage space to improve flood control capability, stream restoration to benefit endangered salmon, increase power generation, and water supply to protect against impacts from drought. Water efficiency improvements and potentials for water reregulation and reuse will also be evaluated.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$452,000	$402,000	$ 50,000	$ - 0 -	$ - 0 -
Non-Federal	475,000	425,000	50,000	- 0 -	- 0 -
Total program	$927,000	$827,000	$100,000	$ - 0 -	$ - 0 -

Pallid Sturgeon Recovery Decision Support System

Montana, North Dakota

Description The purpose of this study is to cooperate with the U.S. Fish and Wildlife Service Recovery Team to recover and/or protect the species in the Upper Missouri Basin and to develop a river management plan in the study area.

Duration Initiation: FY 1996 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$350,000	$- 0 -	$140,000	$140,000	$ 70,000
Non-Federal	350,000	- 0 -	140,000	140,000	70,000
Total program	$700,000	$- 0 -	$280,000	$280,000	$140,000

The total estimated cost decreased $280,000 due to a delay in the beginning of the study in FY 1995 due to negotiations with cost-sharing partners.

Pecos River Basin Fish and Wildlife & Water Quality Protection

New Mexico

Description This study is investigating pollution sources and proposing mechanisms to protect Reclamation's project water and associated fish and wildlife resources.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$313,645	$297,645	$16,000	$ - 0 -	$ - 0 -
Non-Federal	315,000	275,000	40,000	- 0 -	- 0 -
Total program	$628,645	$572,645	$56,000	$ - 0 -	$ - 0 -

The total estimated cost increased $78,645 because additional data and analysis were required to accomplish the study objectives.

Ongoing Projects . . . .

Reclamation Wastewater
Various States

Description This program conducted reconnaissance studies of wastewater reclamation potential at several sites in the Western States as authorized by Public Law 102-575, Title 16. FY 1996 funds will be used to complete reports documenting this effort.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$501,972	$499,610	$2,362	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$501,972	$499,610	$2,362	$ - 0 -	$ - 0 -

Rincon Bayou - Nueces Marsh Wetlands Restoration/Enhancement Project
Texas

Description The purpose of the study is to evaluate and identify opportunities to create, restore, and enhance wetlands in the Rincon Bayou - Nueces Marsh.

Duration Initiation: FY 1993 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 875,000	$ 454,164	$150,000	$100,000	$170,836
Non-Federal	1,440,000	1,063,374	125,000	125,000	126,626
Total program	$2,315,000	$1,517,538	$275,000	$225,000	$297,462

The total estimated cost increased $523,000 and the study extended two years due to an increase of the non-Federal contributions resulting in a rescoping of the study.

Rio Grande\Rio Bravo International Basin Assessment

Texas

Description The study is assisting the State of Texas, the U.S. Section of the International Boundary and Water Commission, the City of El Paso, and other interregional counterparts to perform a water and related resources assessment of portions of the Rio Grande Basin. The accumulated data will be capable of integrating with other available data and be used to examine water conservation, drought management, water treatment and recycling, water quality and salinity, and watershed management options, along with water resource related issues such as wetlands, riparian areas, endangered species, and fish and wildlife habitat.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 600,000	$ - 0 -	$150,000	$200,000	$250,000
Non-Federal	600,000	- 0 -	150,000	200,000	250,000
Total program	$1,200,000	$ - 0 -	$300,000	$400,000	$500,000

The total estimated cost has remained the same, however; the study has been extended one year due to revised funding schedule.

Rio Grande\Low Flow Conveyance Channel Study

New Mexico

Description The study is identifying and evaluating structural modifications and operational changes to the Low Flow Conveyance Channel and the Rio Grande Floodway system. The study will analyze various hydrologic scenarios and provides alternatives in water conservation, wildlife management, water quality, and environmental considerations while minimizing operation and maintenance costs.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$480,000	$ - 0 -	$ 75,000	$200,000	$205,000
Non-Federal	320,000	- 0 -	75,000	120,000	125,000
Total program	$800,000	$ - 0 -	$150,000	$320,000	$330,000

The total estimated cost remains the same, however, the study has been extended one year due to revised funding schedule.

Ongoing Projects . . . .

Rio Grande Conveyance Canal/Pipeline Modeling
New Mexico, Texas

Description The study is assisting the New Mexico-Texas Water Commission, the State of Texas, the U.S. Section of the International Boundary and Water Commission, the City of El Paso, and other interregional counterparts to evaluate the ability of conveyance alternatives to deliver surface water of suitable quality and quantity to each irrigation district and the City of El Paso surface water treatment plants on a year round basis.

Duration Initiation: FY 1996 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$150,000	$ - 0 -	$150,000	$ - 0 -	$ - 0 -
Non-Federal	150,000	- 0 -	150,000	- 0 -	- 0 -
Total program	$300,000	$ - 0 -	$300,000	$ - 0 -	$ - 0 -

Salton Sea
California

Description Over the last several decades there has been concern over the increasing salinity of the Salton Sea. There are indications that increasing salinity is adversely impacting biological values and recreational uses. Another concern is the water surface elevation of the Sea has been on the rise. The rising Sea has been inundating the Salton Sea National Wildlife Refuge at the south end of the Sea. Impacts of increasing salinity and water surface elevation on endangered species that inhabit the Sea are unknown. Solutions currently being considered include creating an outlet to the Sea of California, pumping Salton Sea water into on-shore evaporation ponds that would be used to produce solar energy, and diking the Sea to create salinity zones.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$300,000	$130,714	$169,286	$ - 0 -	$ - 0 -
Non-Federal	300,000	85,000	215,000	- 0 -	- 0 -
Total program	$600,000	$215,714	$384,286	$ - 0 -	$ - 0 -

San Francisco Area Water Reclamation Study
California

Description This water conservation study evaluates the means to convey and use reclaimed water as a dependable, supplemental water supply to help meet competing new needs of agricultural, municipal and industrial, and environmental uses within the San Francisco Bay Area and San Joaquin Valley. The recycled water could be exchanged for Delta water presently being pumped into the Delta Mendota Canal. The fresh water obtained through the exchange could then be released as additional environmental flows to avoid cuts in other potable water supplies.

Duration Initiation: FY 1994 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimated FY 1997	Balance to complete
Reclamation	$3,790,000	$ 839,920	$1,075,080	$1,500,000	$375,000
Non-Federal	3,790,000	790,000	1,500,000	1,500,000	- 0 -
Total program	$7,580,000	$1,629,920	$2,575,080	$3,000,000	$375,000

The total estimated cost decreased $1,750,000 due to revised cost estimates.

San Juan Gallup/Navajo Water Supply Study
New Mexico

Description This study is providing planning and technical assistance to the Navajo Nation and the City of Gallup, New Mexico to formulate a project to divert water from the San Juan River to augment domestic water supplies of rural Navajo communities on the eastern side of the reservation, the City of Gallup New Mexico, and Window Rock, Arizona. Existing groundwater supplies in the area are inadequate to meet expected future demands.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$417,927	$317,927	$100,000	$ - 0 -	$ - 0 -
Non-Federal	376,595	326,595	50,000	- 0 -	- 0 -
Total program	$794,522	$644,522	$150,000	$ - 0 -	$ - 0 -

Ongoing Projects . . . .

Southern California Coastal Water Supply Study
California

Description The study will examine the possibilities for collecting nonpoint runoff before it merges with ocean water to help satisfy the municipal and industrial demands of southern California. Result will be a Water Management Plan for local water agencies to coordinate the use of existing facilities and to construct additional facilities (non-Federally funded) for better management of local water supplies.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 750,000	$ - 0 -	$ 50,000	$250,000	$450,000
Non-Federal	750,000	- 0 -	50,000	250,000	450,000
Total program	$1,500,000	$ - 0 -	$100,000	$500,000	$900,000

Southern California Comprehensive Water Supply and Reclamation Study
California

Description The objective of this study is to develop a long-range water supply and reclaimed water management program for the southern California coastal and inland valley area that would make more efficient use of existing water resources through the greater integration and use of reclaimed water.

Duration Initiation: FY 1993 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$3,097,000	$ 796,544	$ 781,456	$ 750,000	$ 769,000
Non-Federal	3,097,000	481,762	510,000	810,000	1,295,238
Total program	$6,194,000	$1,278,306	$1,291,456	$1,560,000	$2,064,238

The total estimated cost increased $194,000 due to the addition of the Orange County Regional Water Reclamation study as part of this existing study.

Southern Oregon Coastal River Basins
Oregon

Description The study will allow Reclamation to participate in a State-lead effort to improve watershed conditions in several river basins in southwestern Oregon. Reclamation will provide technical expertise related to hydrological modeling and water conservation. Reclamation will also participate on multi-entity watershed councils to help identify opportunities for improved water management and to reduce conflict over water resources between environmental interests and water users.

Duration Initiation: FY 1996 Completion: FY 2000

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 800,000	$ - 0 -	$100,000	$200,000	$ 500,000
Non-Federal	800,000	- 0 -	100,000	200,000	500,000
Total program	$1,600,000	$ - 0 -	$200,000	$400,000	$1,000,000

Technical Assistance to States
17 Western States

Description This program is designed to provide Reclamation with a vehicle to assist States or State-chartered agencies with data collection and analyses for management of water and related land resources. While this assistance can be complex, it is intended only as support to States in their own work. Entire project investigations will not be performed for the States or State-chartered agencies.

Duration Ongoing

Funding The estimated funding for FY 1997 is $1,925,000 which is a increase of $654,000 from FY 1996.

Tri-County Feasibility Study
Cheyenne River Sioux Tribe
North Dakota

Description The purpose of this study is to evaluate all possible alternatives for how the currently insolvent Tri-County Rural Water System could be utilized to satisfy the current and future water needs of the Cheyenne River Indian Reservation and neighboring rural communities and rural residences. Alternatives will address issues associated with refinancing of existing debt, financing for project repairs and expansion, project cost repayment, responsibility for OM&R and Federal trust responsibility to the Cheyenne River.

Duration Initiation: FY 1995 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$300,000	$150,000	$150,000	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$300,000	$150,000	$150,000	$ - 0 -	$ - 0 -

Tucson/Phoenix Water Conservation and Exchange Study
Arizona

Description Reclamation will facilitate a water conservation and exchange study for reclamation and exchange of sewage effluents from the greater metropolitan areas of Tucson and Phoenix.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 904,999	$ 672,412	$232,587	$ - 0 -	$ - 0 -
Non-Federal	1,113,571	1,063,571	50,000	- 0 -	- 0 -
Total program	$2,018,570	$1,735,983	$282,587	$ - 0 -	$ - 0 -

The total estimated cost increased by $310,804 due to the expansion of the study to include Northwest Tucson and Pima County areas.

Upper Deschutes River Basin Water Conservation Project

Oregon

Description The study is evaluating measures to improve water conveyance and on-farm irrigation efficiencies as well as opportunities to improve river and reservoir system operations. Demonstration projects in partnership with local irrigation districts are being implemented and a strategy developed for institutional and financial implementation and evaluation of conservation technology.

Duration Initiation: FY 1990 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,148,000	$1,088,000	$ 60,000	$ - 0 -	$ - 0 -
Non-Federal	1,215,000	1,015,000	200,000	- 0 -	- 0 -
Total program	$2,363,000	$2,103,000	$260,000	$ - 0 -	$ - 0 -

Upper Salmon River Water Optimization Study

Idaho

Description The study will develop conservation plans for improving irrigation efficiencies to provide multipurpose water supplies in the Upper Salmon River Basin. A preliminary report identifying potential efficiencies that could be developed with non-Federal funding, and other opportunities that may need Federal participation, will be prepared at mid-study. The study will conclude with a planning report/environmental statement.

Duration Initiation: FY 1995 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 504,000	$104,000	$150,000	$150,000	$100,000
Non-Federal	525,000	125,000	150,000	150,000	100,000
Total program	$1,029,000	$229,000	$300,000	$300,000	$200,000

Upper Snake River Basin Salmon Migration Water Study

Idaho, Oregon

Description This study will produce a detailed engineering, economic, and environmental evaluation of the most promising storage sites in the Snake River Basin. This storage would have the primary purpose of providing significant quantities of water for lower Snake River flow augmentation to help restore threatened and endangered salmon.

Duration Initiation: FY 1994 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,552,000	$319,000	$333,000	$300,000	$ 600,000
Non-Federal	1,600,000	400,000	300,000	300,000	600,000
Total program	$3,152,000	$719,000	$633,000	$600,000	$1,200,000

The total estimated cost increased $1,270,000 and the completion date extended 2 years because the Northwest Power Planning Council's Fish and Wildlife Plan was amended as required by court order. The new plan calls for Reclamation to perform detailed analyses of three potential storage sites to provide water to migration flows in the Snake and Columbia Rivers for endangered and threatened salmon. The additional funds will allow completion of analysis for one of those sites.

Upper Snake River Basin Storage Optimization

Idaho, Wyoming

Description Reclamation's Upper Snake River Basin Storage Optimization study is a cooperative effort with the State of Idaho and others to enhance water management and river and reservoir operation tools in the basin including surface and ground water computer models. Operational options will be identified and impacts evaluated. The study scope has been expanded to address opportunities to augment Snake River flows for water quality, fish and wildlife, and hydropower purposes including water efficiency improvements, water leasing, and acquisition of existing storage.

Duration Initiation: FY 1987 Completion: FY 1997

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$1,164,000	$ 914,000	$200,000	$ 50,000	$ - 0 -
Non-Federal	1,310,000	1,148,000	100,000	62,000	- 0 -
Total program	$2,474,000	$2,062,000	$300,000	$112,000	$ - 0 -

Verde River Basin Management Study
Arizona

Description The purpose of the study is to develop a basin water management plan addressing such problems as future water supplies, conflicting water right claims, water quality, endangered species, and other environmental issues.

Duration Initiation: FY 1995 Completion: FY 1998

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 500,000	$124,762	$125,238	$125,000	$125,000
Non-Federal	500,000	115,017	125,000	125,000	134,983
Total program	$1,000,000	$239,779	$250,238	$250,000	$259,983

Walker River Basin
California, Nevada

Description This study will be conducted in cooperation with the University of Nevada to determine the water banking potential within the Walker River Basin. The study will assess the extent that voluntary water transfers might be employed to assist in the stabilization and banking of basin water supplies.

Duration Initiation: FY 1996 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$150,000	$ - 0 -	$ 150,000	$ - 0 -	$ - 0 -
Non-Federal	150,000	- 0 -	150,000	- 0 -	- 0 -
Total program	$300,000	$ - 0 -	$ 300,000	$ - 0 -	$ - 0 -

Ongoing Projects . . . .

Washington River Basin Planning
Washington

Description The study will assist the State of Washington and local interests, including Native American Tribes, in the assessment of options to improve watershed conditions in State-selected river basins. Reclamation's participation in this multi-entity effort will focus on anadromous fish habitat issues related to Indian Trust Assets and operation of Reclamation projects.

Duration Initiation: FY 1996 Completion: FY 2000

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 500,000	$ - 0 -	$ 75,000	$125,000	$300,000
Non-Federal	500,000	- 0 -	75,000	125,000	300,000
Total program	$1,000,000	$ - 0 -	$150,000	$250,000	$600,000

Weber Basin Water Quality/Watershed Management Study
Utah

Description The study is assisting Reclamation, the State of Utah, local governments, and water districts in the improvement of water management. The study will identify specific water quality problems and their causes, and determine measures which should be implemented to preserve and/or improve water quality in the area.

Duration Initiation: FY 1993 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$487,451	$346,451	$141,000	$ - 0 -	$ - 0 -
Non-Federal	500,000	350,000	150,000	- 0 -	- 0 -
Total program	$987,451	$696,451	$291,000	$ - 0 -	$ - 0 -

The total estimated cost increased $77,000 due to higher than anticipated costs associated with the completion of the study.

Western Montana Water Conservation Study
Montana

Description The purpose of this study is to inventory irrigation operations in western Montana to obtain information on water losses, identify and prioritize areas having major water loss or management problems, discover what water conservation activities are occurring or planned, determine water user interest in pursuing conservation programs, identify water markets and potential legal and institutional constraints, explore opportunities for implementation funding, and develop a strategy for implementation of desirable water conservation opportunities.

Duration Initiation: FY 1994 Completion: FY 1997

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$ 729,000	$378,000	$201,000	$150,000	$ - 0 -
Non-Federal	730,000	380,000	200,000	150,000	- 0 -
Total program	$1,459,000	$758,000	$401,000	$300,000	$ - 0 -

The total estimated cost increased $60,000 due to an increase in the non-Federal participation in resolving conflicts between consumptive use interests and instream flow advocates.

West Texas/Southern New Mexico Water Resources Investigations

New Mexico, Texas

Description The study is investigating water demands and resources in the rapidly growing area in and around El Paso County, Texas, and north to Elephant Butte Dam. When combined with the Cuidad Juarez, Mexico, this area represents the largest populating area along the U.S./ Mexico border. The study will result in a special report providing options for decision makers in the area.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$248,868	$218,868	$30,000	$ - 0 -	$ - 0 -
Non-Federal	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -
Total program	$248,868	$218,868	$30,000	$ - 0 -	$ - 0 -

The total estimated cost decreased by $551,132 due to the scope of the study being narrowed to focus on preparing a report which describes the legal, institutional, and hydrological parameters that define the current use of the region's water resources and provides a basis for determining future Bureau policy for converting Rio Grande Project water from agricultural to other uses. Under this narrow scope, non-Federal cost-sharing was not deemed appropriate.

Yampa River Water Supply Study

Colorado

Description The study is examining the rehabilitation, enlargement, and re-operation of Elkhead Creek Reservoir for the purposes of endangered species habitat enhancement and M&I water supplies for the city of Craig, Colorado.

Duration Initiation: FY 1994 Completion: FY 1996

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$249,869	$199,869	$ 50,000	$ - 0 -	$ - 0 -
Non-Federal	250,000	150,000	100,000	- 0 -	- 0 -
Total program	$499,869	$349,869	$150,000	$ - 0 -	$ - 0 -

Yellowstone River Basin Study

Montana

Description This study will examine all Federal and State diversion dams, and will produce appraisal level designs and cost estimates for fish passage facilities, focusing on the needs of listed and candidate species.

Duration Initiation: FY 1996 Completion: FY 1999

	Estimated cost	Total to 9/30/95	Program FY 1996	Estimate FY 1997	Balance to complete
Reclamation	$320,000	$ - 0 -	$120,000	$100,000	$100,000
Non-Federal	320,000	- 0 -	120,000	100,000	100,000
Total program	$640,000	$ - 0 -	$240,000	$200,000	$200,000

The total estimated cost has remained the same, however; the study has been extended one year due to revised funding schedule.

GENERAL ADMINISTRATIVE EXPENSES

Description

The General Administrative Expenses (GAE) appropriation finances Reclamation's centralized management functions. These functions include overall program management; personnel policy ; equal employment opportunity; safety and health management; budgetary policy formulation; information resources management; procurement, property, and general services policy; public affairs; and organizational and management analysis. Also, included are continuing efforts in special initiatives such as supporting workforce diversity, streamlining efforts, and improving performance.

FY 1997 Program

The proposed GAE budget of $48,971,000 supports day-to-day Reclamation management and general oversight functions. In addition, funds are available within the request to provide support for the Congressionally mandated Western Water Policy Review Commission and for such Departmental initiatives as implementation of the Interior Department Electronic Requisition System (IDEAS).

Major Program Development and Activities

Organizational Development - In support of the Vice-Presidents National Performance Review, the Bureau of Reclamation began its management restructuring in FY 1994. Management layers were eliminated and more decision-making authority was transferred to lower management levels. This has resulted in a continuing realignment of centralized management activities resources within the appropriation.

Human Resources Management - Emphasis continues on programs and special activities, initiated by the Department and bureau, which assist in developing a more diverse work place; expanding professional growth opportunities for women, minorities, and physically disabled individuals; and promoting safety in the workplace.

Enhancement and improvement of Reclamations workforce continues through the Human Resource Development program. Funding in this area provides for organizational analysis and management training to further enhance the work environment. Program activities include human resources management oversight and management training and development.

Education continues as a fundamental component of improving the skills of the workforce. Education programs include training of Reclamation personnel; hiring cooperative education students; presentations at schools, conferences, and public forums; and supporting initiatives which create avenues for public awareness of Reclamations resource management and conservation programs.

Continuing Programs - Aggressive action will continue in the personnel streamlining efforts which will provide managers and employees greater flexibility and efficiency in the personnel management area.

General Administrative Expenses . . . .

Funding continues for support of implementation of the Chief Financial Officers Act, development of performance measurements, assessment of financial management program effectiveness, and correction of material weaknesses identified through the Management Control Program.

Summary

The GAE proposed funding level reflects managements commitment to minimizing administrative costs and supports the necessary activities related to general management and policy development.

Summarized Financial Data

	Enacted FY 1996	Request FY 1997
General Administrative Expenses	$48,150,000	$48,971,000

Central Valley Project
Restoration Fund

Description

The Central Valley Project Restoration Fund (CVPRF) was authorized in the Central Valley Project Improvement Act, Title 34 of Public Law 102-575. This Fund was established to provide funding from project beneficiaries for habitat restoration, improvement and acquisition, and other fish and wildlife restoration activities in the Central Valley Project area of California. Revenues are derived from payments by project beneficiaries and from donations. Payments from project beneficiaries include several required by the Act (Friant Division surcharges, higher charges on water transferred to non-CVP users, and tiered water prices). In addition, to the extent required in appropriations acts, additional annual mitigation and restoration payments, in addition to the charges provided for or collected under Sections 3404(c)(3), 3405(a)(1)(C), 3405(f), and 3406(c)(1) may be assessed and collected.

Extensive coordination and cooperation between the Fish and Wildlife Service and the Bureau of Reclamation in conjunction with the CVP Round Table members continues to help ensure efficient and effective implementation of the Act. The CVP Round Table includes water district personnel, power representatives, and interested groups such as the Bank of America, Environmental Defense Fund, Share the Water Coalition, and the Metropolitan Water District.

The State of Califorinia and the Department of the Interior are currently negotiating task order agreements pursuant to the June 27, 1994, Master Agreement for six restoration actions. (The Master Agreement includes provisions on the term, scope, cost-sharing principles, task orders, budgeting/funding, and coordination of all 16 restoration actions). The six restoration actions include : Clear Creek Fish Restoration Program; Restoration of Spawning Gravel Program; Georgianna Slough Program; Old River Fish Barrier; Glenn-Colusa Irrigation District Pumping Plant Mitigation Program; and Refuge Water Supply Acquisition Program. To actively participate as a full partner and cost-share in all restoration actions identified in the CVPIA, the State would need as much as $75 million. To meet an obligation of this magnitude, the State plans to raise a large portion of its' funding through the State bond process. State Senator Jim Costa introduced Senate Bill 900 (SB900) in 1995 that could serve as a vehicle for this process. Intended for the 1996 general election ballot, SB900 will, among other things, provide a framework for the State financing of CVPIA actions.

FY 1997 Program

The FY 1997 program, at $38,096,000, represents the fourth year request for funding from the Central Valley Project Restoration Fund. Sixty-seven percent of this request will be used for habitat restoration, improvement, and acquisition ($25,525,000) and thirty-three percent will be used for those provisions identified in paragraphs 3406(b)(4)-(6), (10)-(18), and (20)-(22) ($12,571,000). In FY 1997 activities funded as part of the thirty-three percent provision include: 3406(b)(6), Shasta Temperature Control Device; 3406(b)(11), Coleman National Fish Hatchery; 3406(b)(12), Clear Creek Fish

Restoration Program; 3406(b)(13), Restore Spawning Gravel and Riparian Habitat; 3406(b)(16), Central Valley Assessment/Monitoring Program; 3406(b)(17), Anderson-Cottonwood Irrigation District Diversion Dam Fish Passage Program; 3406(b)(19), Reservoir Storage Reevaluation; 3406(b)(21), Fish Screen Program; and 3406(b)(22), Agricultural Waterfowl Incentive Program.

Summarized Financial Data

Central Valley Project Restoration Fund	FY 1996	FY 1997
Friant Division Surcharges, 3406(c)(1)	$5,900,000	$5,888,000
Additional mitigation and restoration payments, 3407(d)	37,490,000	31,298,000
Municipal and Industrial Surcharge	- 0 -	700,000
Water Transfer Charge	140,000	210,000
Total appropriation	$43,530,000	$38,096,000

Program Highlights

CONSTRUCTION ($38,096,000)

Miscellaneous Project Programs, CVP ($21,226,000)

Refuge Water Supply ($3,000,000): Section 3406(d). Wildlife habitat within the Central Valley of California and critical wintering areas of the Pacific Flyway have diminished dramatically in recent times. The purpose of this program is to restore and enhance wetland habitat by increasing the allocation of water to certain wildlife refuges within the Central Valley.

Implementation of conveyance plans for water supplies for full habitat management to seven refuge boundaries will be initiated along with possible construction of conveyance facilities is scheduled for FY 1997. The environmental compliance document will be completed in FY 1996 and design work for conveyance facilities will be initiated in FY 1996 and with a staggered schedule extending through FY 1999. Also, negotiations with the California Department of Fish and Game and the Grassland Resource Conservation District for interim water service contract and execution of temporary agreements for conveyance of refuge water supplies with various other water districts will be undertaken.

Phase II, Environmental Compliance Activities, was initiated in FY 1995 to develop and compare water supply conveyance alternatives. Preliminary negotiations for long-term agreements were also initiated in FY 1995. The goal of the refuge water supply program is to have NEPA/CEQA processes completed in FY 1996. Fifty percent of the water needed for full habitat management is scheduled for requisition in FY 1997. An implementationplan will be subsequently developed to assure accomplishment by 2002.

Anadromous Fish Restoration Program ($8,000,000): Section 3406(b)(1). Populations of salmon have declined over fifty percent since the 1950's in Central Valley streams and rivers. In view of this and subsequent declines in other anadromous fish species (steelhead, striped bass, sturgeon, and American shad), the Central Valley Project Improvement Act requires (within 3 years) the development and implementation of a plan to increase the populations of anadromous fishes in the Central Valley. The purpose of this program is to increase populations of discrete wild stocks of anadromous fishes by 2002 to at least twice the average level from 1967 to 1991.

A draft Anadromous Fish Restoration Plan was released for public review and comment in Mid-December, 1995. A final plan is scheduled for release by March 1996. Upon completion of the Plan, implementation actions will be initiated based on the stated goals and schedules outlined in the completed plan.

Central Valley Restoration Fund . . . .

Other CVP Impacts ($1,000,000): Section 3406(b)(1). In conjunction with developing and implementing the anadromous fish restoration program discussed in the preceding paragraph, the Secretary is directed to make all reasonable efforts to address other identified adverse environmental impacts of the Central Valley Project not specifically enumerated in the section. To this extent, initial efforts will focus on implementation of priority needs identified as a result of the interim contract renewal consultation. Projects which could be funded include identification and protection of habitat suitable for the conservation of listed and proposed riparian and aquatic species which are recognized as resolving identified impacts of the Central Valley Project.

Private Wetlands Investigation ($500,000): Section 3406(d)(6). Investigate and review the reliability and quality of water supplies available to privately owned wetlands and determine the need, if any, for supplemental water. In addition, review water supply and delivery requirements for 120,000 acres of restored wetlands. A report on supplemental actions to accomplish any program requirements will be accomplished by September 30, 1997.

Refuge Wheeling Costs: ($2,000,000): Section 3406(d). Payment of wheeling costs to convey water to refuges and wildlife habitat boundaries. Water Districts within the State of California and the California Department of Water Resources will be reimbursed for all interim wheeling costs associated with delivery of water to wildlife refuges. By FY 1997, it is envisioned that a comprehensive plan will be initiated to provide for long-term delivery to the refuges.

Dedicated Project Yield ($450,000): Section 3406(b)(2). Dedicate and manage annually 800,000 acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures. Development of a conceptual plan for the long-term use of the dedicated 800,000 acre-feet will be completed in FY 1997 which will include an accounting program for the 800,000 acre-feet. Rules and Regulations will be promulgated for the management of the 800,000 acre-feet. In addition, assistance will be given to the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. As new information becomes available, stream flow objectives will be reviewed and revised.

A relatively high level of funding will be needed until rules and regulations have been promulgated and management of the dedicated yield is incorporated into routine project operations over the long term. Thereafter, funding for coordination, review of effectiveness, and modification of use patterns will be required.

Restoration of Riparian Habitat ($425,000): Section 3406(b)(13). Salmon populations have declined drastically within the Central Valley due in part to a loss of appropriate rearing habitat in the upper Sacramento, American, and Stanislaus Rivers. A program to reestablish meander belts, and limit bank protection activities to avoid and reduce habitat loss will be developed. In FY 1996, an appraisal level study will be initiated on meanderbelt and riparian habitat restoration needs. In FY 1997, a pilot project will be initiated to demonstrate the effects of positive meanderbelt management.

Agricultural Waterfowl Incentive Program ($1,239,000): Section 3406(b)(22). Wetland habitats and associated values within the Central Valley have decreased drastically due in part to project operations and their cumulative impacts. Incentives will be provided to farmers encouraging participation in a program to keep fields flooded during appropriate time periods for the purpose of waterfowl habitat creation and maintenance and for water yield enhancement. The goal for FY 1997 is to continue to implement the incentive program upon completion of environmental compliance requirements. The expected program schedule projects the program through 2002.

Comprehensive Assessment/Monitoring Program ($2,312,000): Section 3406(b)(16). This will be the third year of funding for implementing a monitoring and assessment program to determine the degree of effectiveness of the various fish and wildlife restoration activities that have been accomplished and identify and implement additional changes or actions that may be required to enhance and restore fish and wildlife habitat resources. An assessment of the needs to establish a comprehensive assessment program by evaluating the individual needs of the various actions required by Public Law 102-575 and reviewing the adequacy of existing monitoring efforts will be continued. Revised or supplemental existing programs will be utilized to the greatest extent.

In FY 1997, a detailed monitoring plan will be initiated.

Reservoir Storage Reevaluation ($300,000): Section 3406(b)(19). The management objectives of this program are to reevaluate existing operational criteria in order to maintain minimum carryover storage at Sacramento and Trinity River reservoirs. The focus of this reevaluation is the protection and restoration of anadromous fish on the Sacramento and Trinity Rivers. In FY 1996 and 1997, actions will involve the evaluation of operational criteria for temperature needs and water supplies as Project operations change due to other dependencies.

Fish Screen Program ($2,000,000): Section 3406(b)(21). This program is directed to assist the State of California's efforts to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on selected Central Valley rivers and tributaries. These measures include construction of screens on unscreened diversions, rehabilitation of existing screens, replacement of existing non-functioning screens, and relocation of diversions to less fishery-sensitive areas. Focus of this effort over the next five years, will be to screen about 100 diversion sites.

Sacramento River Division, CVP ($1,000,000)

Central Valley Project Improvement Activities Supporting Investigations ($1,000,000): Section 3406(e). Investigate and provide recommendations to the Committee on Energy and Natural Resources of the Senate and the Committees on Interior and Insular Affairs and Merchant Marine and Fisheries of the House on the feasibility, cost, and desirability of developing and implementing measures to maintain suitable temperatures for anadromous fish survival, opportunities for additional hatchery production, measures to eliminate barriers to upstream and downstream migration of salmonoids, installation and operation of temperature control devices, measures to provide for modified operations and new or improved control structures, and other measures which the Secretary determines would protect, restore, and enhance natural production of salmon and steelhead trout in tributary streams. All studies in this section are scheduled for completion with required reports to Congress by September 30, 1997, with no funding scheduled in FY 1998 or beyond.

3406(e)(1). Temperature evaluations in both the Sacramento and San Joaquin Rivers will continue.

3406(e)(3). The review of barriers to salmonoid migration throughout the Central Valley will continue.

3406(e)(5). A plan of study for the modified operation and new or improved control structures at Delta Cross Channel and Georgianna Slough will be completed and work will begin on the final report.

San Joaquin Division, CVP ($9,275,000)

San Joaquin Basin Action Plan ($1,000,000): Section 3406(d). The management objectives of this program are to ensure permanent habitat preservation of lands that are of vital importance to Pacific Flyway ducks and geese, threatened and endangered species, other migratory birds, and resident species. Create wetlands for waterfowl and other wetland dependent species on agricultural lands suitable for conversion. Protect adequate sanctuary to encourage wider distribution of waterfowl and provide protection from disturbance for endangered and threatened species.

The planning and design required for full implementation of the San Joaquin Basin Action Plan will continue. Right-of-way acquisition for identified water conveyance alignments will continue. The environmental compliance documentation will complete and design and construction of the highest priority conveyance facilities for Action Plan identified water supplies will be initiated.

Water Acquisition ($6,275,000): Section 3406(b)(3). A program to acquire additional water supplies to supplement the quantity of water dedicated to fish and wildlife purposes will continue. Examples of the types of options which could be identified include improvements in or modifications of the operations of the Central Valley Project, water banking, conservation, transfers, conjunctive use and temporary and permanent land fallowing, including purchase, lease, and option of water, water rights, and associated agricultural land. Water acquisition agreements for short-term water supplies for the Level 4 increment of full habitat development for refuges will continue to be executed. In addition, environmental compliance of a long-term acquisition program will be completed, followed by initiating acquisition of long-term water supplies.

Land Retirement ($2,000,000): Section 3408(h), 3406(b)(3). Continue to acquire lands to establish wildlife habitat, retire lands from irrigated production, and implement the drainage management plan of the San Joaquin Valley Drainage Program. Lands will be selected for purchase based upon the degree to which an acquisition would further the broad environmental objectives of the CVPIA. Land purchases, with associated water rights in some cases, will occur on a willing seller basis and will be targeted to optimize: (1) wildlife protection and restoration; (2) water conservation; and/or (3) drainage problem reduction.

Reclamation plans to use the purchased 590 acres, in FY 1996, to test habitat restoration potential in FY 1997. Long-term guidelines and Rules and Regulations will also be developed in FY 1997.

Shasta Division, CVP ($6,595,000)

Shasta Temperature Control Device ($3,470,000): Section 3406(b)(6). Anadromous salmonoids have experienced drastic population declines in the past 50 years within the Central Valley. To provide a better environment and assist in recovery actions for these species, a structural temperature control device will be installed at Shasta Dam to assist in efforts to control water temperatures and protect anadromous fish in the Upper Sacramento River and restore full power production.

A construction contract was awarded early in FY 1995. Construction activities will continue through FY 1996 with an anticipated completion date of October 1996.

Coleman National Fish Hatchery ($2,000,000): Section 3406(b)(11). Coleman National Fish Hatchery supplements natural production of anadromous fish in the Upper Sacramento River basin. The Fish and Wildlife Service is currently developing a plan to rehabilitate and expand the facility so that survival, smolt quality, and release size are significantly improved. An additional objective is to provide full treatment of waters entering the hatchery system thus removing or significantly lowering potential for transmission of disease organisms to hatchery fish. The Hatchery is in need of significant rehabilitation and replacement of facilities. Although a number of improvements have been made, others are required for the Hatchery to minimally satisfy mitigation objectives as follows: rehabilitate water supply and treatment facilities; rehabilitate existing ponds; construct new ponds; construct new adult holding facilities for winter-run salmon; complete rehabilitation of roads and parking areas.

Construction will be accomplished in phases over several years with actual construction taking place in the spring and summer of each year in order to minimize impacts to the fall and winter spawning and rearing periods. In FY 1995 rehabilitation of 50-year old rearing ponds, a new primary water line for the ponds, and Phase I water treatment facilities to provide up to 10,000 gallons per minute of treated water was completed. In FY 1996, Phase II studies are being conducted to assure efficient use of treated water. In addition, installation of equipment purchased in FY 1995 will take place. In FY 1997, the selected plan alternative will be implemented to safeguard the hatchery water supply.

Central Valley Restoration Fund . . . .

Clear Creek Fish Restoration Program ($500,000): Section 3406(b)(12). The Secretary is directed to develop and implement a comprehensive program to provide flows to allow sufficient spawning, incubation, rearing, and outmigration for salmon and steelhead from Whiskeytown Dam as determined by instream flow studies after Clear Creek has been restored and a new fish ladder has been constructed at the McCormick-Saeltzer Dam.

Interior is working with the State resources agencies in planning for restoration of Clear Creek. Several measures were taken in 1995, such as providing greater instream flows, describing ways to increase anadromous fish, and identifying funding needs for watershed and ecosystem protection. A milestone was reached when a draft task order for Clear Creek restoration was produced. Future actions will include prioritization of watershed restoration projects, environmental compliance, and project implementation.

Restore Spawning Gravel ($525,000): Section 3406(b)(13). Salmon populations have declined drastically within the Central Valley due in part to a loss of access to historic and/or appropriate spawning gravels. Spawning gravel must be restored on upper Sacramento, American, and Stanislaus Rivers. A gravel restoration project on the Sacramento River below Keswick Dam was initiated in FY 1995. Gravel restoration will continue on an opportunistic basis while a long-term program for gravel restoration is developed.

Anderson-Cottonwood Irrigation District Diversion Dam Fish Passage Program ($100,000): Section 3406(b)(17). The Secretary is directed to develop and implement a program to resolve fishery passage problems at the subject Dam as well as upstream stranding problems related to Dam operations. To date Reclamation has designed a catwalk that would allow personnel from the District to safely adjust the boards in the diversion dam when flow conditions make this necessary. Beginning in FY 1996 and continuing through FY 1997 the Department of Interior will conduct a thorough evaluation of all existing information, collect additional information if needed, and develop a long-term solution to the fishery passage and upstream stranding problems.

CENTRAL VALLEY PROJECT
RESTORATION FUND
$'s in thousands

Project or Study	FY 1996 Enacted	FY 1997 Request
CONSTRUCTION		
Miscellaneous Project Programs		
Refuge Water Supply	3,000	3,000
Anadromous Fish Program	3,000	8,000
Other CVP Impacts		1,000
Flow Fluctuation Study	0	
Reservoir Storage		300
Water Conservation Projects	0	0
Water Augmentation Program	0	0
Private Wetlands/Joint Venture	500	500
Project Fishery Impacts	0	0
Ecosystem/Water Conservation Study	0	0
Refuge Wheeling Costs	1,700	2,000
Dedicated Project Yield	375	450
Evaluate Project Operations	0	0
Water Systems Operations Models	0	
Sacramento River Division		
CVPIA Supporting Investigations	1,500	1,000
San Joaquin Division		
San Joaquin Basin Action Plan	1,000	1,000
Water Acquisition	10,973	6,275
Land Retirement	6,118	2,000
Land Retirement		
Subtotal - Habitat Restoration	28,166	25,525
Shasta Division		
Shasta Temperature Control Device	12,281	3,470
Coleman National Fish Hatchery	0	2,000
Clear Creek		500
Anderson-Cottonwood ID		100
Restore Spawning Gravel	583	525
Miscellaneous Project Programs		
Agricultural Waterfowl Incentive Program	500	1,239
Central Valley Assessment/ Monitoring Program	2,000	2,312
Riparian Habitat		425
Fish Screen Program	0	2,000
Delta Division		
Tracy Pumping Plant		
Sacramento River Division		
Fish Passage Program	0	0
Pilot Research Pump Evaluation	0	0
	0	
Subtotal - Other F&W	15,364	12,571
TOTAL - RESTORATION FUND	43,530	38,096

WORKING CAPITAL FUND

Description

The Working Capital Fund (WCF) is available without fiscal year limitation for expenses necessary for furnishing materials, supplies, equipment, work, and services in support of Bureau programs, and, as authorized by law, to agencies of the Federal Government and others. The WCF will be credited with appropriations made for the purpose of providing or increasing capital.

By design, the fund operates on a self-supporting basis through user charges which are deposited in the fund. Charges to users will be at rates approximately equal to the costs of furnishing the materials, supplies, equipment, facilities, and services (including labor and related costs).

Summarized Financial Data

Working Capital Fund	**Enacted FY1996**	**Request FY1997**
Appropriation	- 0 -	- 0 -
Revenue	$322,596,606	$326,360,110
Application of prior year funds	67,330,408	63,443,000
Unobligated balance, end of year	-63,443,000	-60,286,000
Total program	$326,484,014	$329,517,110

PERMANENT APPROPRIATIONS
Colorado River Dam Fund - Boulder Canyon Project

Description

The Boulder Canyon Project Act of 1928 established the Colorado River Dam Fund. Revenues are derived mainly from the sale of electrical energy generated at Hoover Dam and placed in this fund. The Hoover Power Plant Act of 1984 established that all receipts would be deposited into the Colorado River Dam Fund to be available without further appropriation for payment of operations, maintenance, replacement, interest, and repayment of principal. The Hoover Power Plant Act of 1984 also provided for the transfer of power revenues to the Lower Colorado Basin Development Fund.

FY 1997 Program

Operation and Maintenance, $25,874,000

In 1987, Reclamation assumed responsibility for the operation and maintenance of the powerplant. The program provides for continuing operation and maintenance functions of the project, water scheduling and visitor services, all of which are required for continued delivery of project benefits. Also included are replacement of: operationally unsafe needle valves with jet flow gates; various control and communication system components due to obsolescence and breakage; thrust bearing coolers which leak when movement occurs; corroded piping; an unreliable joint-use microwave system; a marginally operable cooling water eductor system; badly cavitated and worn pressure relief valves; penstock dewatering pumps; station service transformer and breakers to provide a dependable plant power source; communication and control test equipment to protect against loss of efficiency or system failures; transportation equipment; and miscellaneous minor equipment. Portions of the plant will be renovated to more efficiently utilize existing work space and to comply with the Life Safety Code program. A worn and unsafe boring mill, the 300-ton powerhouse cranes, and a badly deteriorated roadway will also be renovated.

Payment of interest on advances from the Treasury, $12,703,000

Interest is paid to the Treasury on funds advanced for construction of the Hoover Dam and appurtenant project works (42 U.S.C. 618a (b)).

Payment to States of Arizona and Nevada, $600,000

Annual payments of $300,000 each are made to Arizona and Nevada from operations of the Boulder Canyon Project, as provided by law (43 U.S.C. 618a (c)).

Subtotal - Obligation $39,177,000

Transfer to Western Area Power Administration, $3,774,000

A transfer is made to WAPA for operation and maintenance, and purchase power.

Transfer to Lower Colorado River Basin Development Fund (LCRBDF), $11,623,000

Public Law 98-381 provides that the rates charged for Boulder Canyon Project power include certain amounts for transfer to the LCRBDF.

Permanent Appropriations . . . .

Summarized Financial Data

Colorado River Dam Fund	**Enacted FY1996**	**Request FY1997**
Appropriation, Permanent Indefinite:	$47,421,000	$54,574,000
Transfer to LCRBDF:	-11,039,000	-11,623,000
Transfer to WAPA:	-4,556,000	-3,774,000
Budget Authority, Colorado River Dam Fund:	$31,826,000	$39,177,000
Application of prior year funds	12,749,000	500,000
Prior year funds carried into succeeding year	-500,000	-500,000
Total obligation	$44,075,000	$39,177,000

EXPLANATION OF CHANGES IN APPROPRIATION LANGUAGE
FISCAL YEAR 1997

GENERAL ADMINISTRATIVE EXPENSE

Revise the language as follows:

> "For necessary expenses of general administration and related functions in the office of the Commissioner, the Denver office, and offices in the five regions of the Bureau of Reclamation, [$54,191,000, of which $1,400,000 shall] to remain available until expended, [the total amount] $48,971,000, to be derived from the Reclamation fund and to be nonreimbursable pursuant to the Act of April 19, 1945 (43 U.S.C. 377): Provided, That no part of any other appropriation in this Act shall be available for activities or functions budgeted for the current fiscal year as general administrative expenses. (Energy and Water Development Appropriations Act, 1995.)

All funds in the General Administrative Expenses account will be no-year funds under this proposal. Consistent with recommendations of the National Performance Review, this change will allow managers flexibility to operate more efficiently and encourage managerial responsiveness that will produce results, not spending.

Mr. MYERS. Thank you. That concludes your prepared state- nents?

Secretary BABBITT. Yes.

Mr. MYERS. I'm willing to defer my questions to our colleagues vhose congressional districts lie within your jurisdiction. Mr. Be- ill?

REPRESENTATIVE TOM BEVILL'S OPENING REMARKS

Mr. BEVILL. Thank you, Mr. Chairman, and Mr. Secretary, it's lways a pleasure to hear your testimony. You always come well repared and do a great job, and, certainly, my personal opinion is hat of all the good—and we've had many good Secretaries of the epartment of Interior, but in my judgment you're the best we've ver had, and I don't have any hesitancy in saying that. We appre- iate your testimony on the Bureau of Reclamation, and Commis- ioner Martinez, we certainly welcome you and look forward to vorking with you, and we know you will do a good job. You've cov- red one thing that I was very interested in. I was hoping you'd ell us about flooding the Grand Canyon—we're supporting you on our efforts there—so I won't get into that any more. You've cov- red it so well and expressed your feelings so well.

ANIMAS-LA PLATA PROJECT

I would like to express to you our, this panel's, continued interest n the Animas-La Plata Project. As you know, the two tribes of In- ians out there in Southwest Colorado have been negotiating for— or a solid 100 years with the Federal government, the city, the ounty, everybody. I don't—I've never heard of anything lasting as ong. It's taken 100 years to reach this point, and I know we had ,000 people out there for the ground breaking when I was out here 4, I don't know, 4 or 5 years ago, and now we've gone through he endangered species routine and all those various routines we ave to follow, and now we're ready to build it. And we hope to ave your continued support in getting that project built. It's the umane thing to do. We have—those tribes of Indians there, as you now, are 65 percent unemployed. They don't have a water supply. hey're living in poverty, and—I think this is one of the most criti- al and most needed projects in the country, and I hope that we an continue to get your support and the support of the Bureau of eclamation to get the project done.

Secretary BABBITT. Mr. Bevill, I've heard your admonitions from ime to time, like each year, on these issues. This business of build- ng dams these days is mighty complex, but we are moving for- vard. The environmental impact statement process, has been com- lex. The Bureau is finishing that document up and it will be— luid, can I give a firm deadline, or shall I say a few weeks, or at nost—a few weeks?

Mr. MARTINEZ. It will be shortly.

Secretary BABBITT. Okay, well——

Mr. MARTINEZ. We have some problems that have arisen that we eed to deal with, but I would expect that hopefully within 60 days ve'll get the thing out.

Mr. BEVILL. Another 100 years won't make too much difference, I don't guess.

Secretary BABBITT. We're, in fact, very close to getting that out. It is essentially complete and we will have it out. We have a request for this project in the budget. As you know, the Fish and Wildlife Service has released a biological opinion which frees up an adequate quantity of water, at least for Phase 1 Stage A of this project, and I believe we can see a pathway now toward doing what this committee wants, which is getting the project moving.

CENTRAL UTAH PROJECT

Mr. BEVILL. Thank you, Mr. Secretary. I'm certainly pleased that—to see that the progress is continuing on the Central Utah Project, and do you have any projected completion date for that project yet?

Secretary BABBITT. I'd like to defer to Patty Beneke on that one. I will only say by preface that the model that the Congress adopted for the Central Utah Project has proven very successful. It really is moving very nicely and the delegation to the water district that was worked out by the Congress in the context of that project, I think, has been very successful. Patty?

Ms. BENEKE. Yes, I want to echo those remarks. We feel that work is going very smoothly on the Central Utah Project. It's my understanding that our projected completion date would be 2003. Our budget submission has included funds for continued work on the Diamond Forks Pipeline and, in addition, we have funding included for environmental work on other features of the project. So I'm pleased to be able to give a very positive report on our progress on the CUP.

COLORADO RIVER

Mr. BEVILL. I'd best make a comment here on the Colorado River. I never cease to be amazed how much water goes through that river. Going back, I even read the five-state agreement—not the agreement but a decision by the United States Supreme Court where the Court actually—and I don't know of that ever happening before or again in our history—but I guess at that time it was necessary to stop the water wars. But the five—the Colorado River was divided up between, as I recall, five States in that decision, telling each State what part of the Colorado River they could use. It always fascinates me to be flying to California and look out there and see that Colorado River, and it doesn't look that big, but it's meant a great deal to about five States there, hasn't it? Been very critical, as a matter of fact.

Secretary BABBITT. Mr. Bevill, that's absolutely correct. Perhaps I should say a few words about what is happening in the Lower Basin of the Colorado River.

Mr. BEVILL. I'd like to hear that.

LOWER COLORADO RIVER BASIN

Secretary BABBITT. It is indeed a momentous time of change in the Lower Basin. It really illustrates what Commissioner Martinez was saying about how we are evolving from construction to some exceedingly complex issues of management. The issues in the Lower Colorado River Basin have been driven, I think, by two or three events. One is a looming water shortage in Las Vegas, Nevada. It's really a serious issue that needs attention because when this Compact you speak of, the Colorado River Compact, was put together and when the Boulder Canyon Project legislation passed in 1928, Las Vegas didn't really exist. It was just sort of a dusty little crossroads out in the middle of a vast desert, and Nevada politics were centered way to the north up by Lake Tahoe and Reno. In retrospect, Nevada really got a very meager share of the River, and Las Vegas, now a booming city of a million people, is really nearing the end of its allocation.

We have started a process. We've brought the Lower Basin states together and said, "We've got to make this system work for everybody, and we must operate this system in a way that Las Vegas can meet its water supply needs because if we don't relieve these pressures, pretty soon the whole system comes under pressure, and that's in nobody's interest."

Across the river in Arizona, we are negotiating some very complex issues about the restructuring of the payment obligations for the Central Arizona Project, which is now largely complete. That, in turn, has been complicated by a referendum in which the residents of Tucson have decided not to take Central Arizona Project water directly, but rather to recharge it into the ground water basin. We're a little behind on meeting our distribution obligations to the Indian tribes, and you'll see that reflected in the CAP portion of the budget.

Over in California, the parties to the Colorado River are busy reassessing their relationships, driven in part by events up to the north in the Central Valley and by concerns in San Diego that as a newcomer city their entitlements to the Colorado River really ought to be recognized a little more than they were back when San Diego was nothing but, you know, sort of a string of bars for Navy shore leave. Are there any Californians here? I retract that description.

Mr. BEVILL. Mr. Fazio won't object. He's from Northern California.

Secretary BABBITT. My point being that these evolving relationships are continually under reassessment, and that's all happening in the Lower Basin right now. I'm quite confident that the parties are making progress and that the Bureau has been a convener simply saying to the parties, "We've got to make this system work and we'll do whatever we can to help you evolve the new relationships."

So that's where we are. One budget direction that you will see in the CAP request, is we have deferred additional requests for terminal storage in Tucson until the City of Tucson works out how it's going to use the water, and correspondingly have begun to move up requests for Indian distribution systems, which, I think, need some more attention.

Mr. BEVILL. Thank you. Thank you, Mr. Chairman.

Mr. MYERS. Mr. Bunn.

REPRESENTATIVE JIM BUNN'S OPENING REMARKS

Mr. BUNN. Mr. Chairman, I think I'll save my questions for the Interior Subcommittee because I would tend to ask questions about forestry which are inappropriate here.

Mr. MYERS. Mr. Fazio.

REPRESENTATIVE VIC FAZIO'S OPENING REMARKS

Mr. FAZIO. Thank you, Mr. Chairman. I want to apologize to my colleagues up front. I have a lot of questions and I hope everybody will bear with me. First I want to welcome everybody. Commissioner Martinez, I look forward to working with you; haven't had the chance to get to know you but I hope we can work together on a whole range of issues that affect California and the West, and I wish you all the best in your position.

Mr. MARTINEZ. Thank you.

TRANSFER OF IMPERIAL IRRIGATION DISTRICT WATER

Mr. FAZIO. I just thought maybe I'd begin by asking Secretary Babbitt about an issue that I had recently presented to me. Obviously its at the other end of my State, but any time water can be more effectively used at the other end of the State we in Northern California are always made happy. Have you looked at the transfer of Imperial Irrigation District water to the San Diego County Water Authority? I know the Metropolitan Water District has some concerns about whether or not that is wheeled through by them for their profit. I understand that there is a growing consensus in California statewide that this is a beneficial program, not only because it has potential for water conservation in the Imperial Irrigation District similar to what we experienced about a decade ago when a transfer was made to the Met. I am wondering if the Department has any intention to get involved in that issue or whether it would be a transfer that would be acceptable to the Secretary and to the Commissioner?

Secretary BABBITT. Mr. Fazio, this Imperial Valley issue is a striking example of the transitions that are underway throughout the West. Just to sort of refresh your recollection, the Imperial Valley was really the first major user of Colorado River water and it's a big place. The Imperial Valley, through the All-American Canal, takes 3 million acre-feet of Colorado River water. That's more water than is used in the entire Los Angeles and San Diego metro areas combined and roughly the same magnitude—I think it is still a little more—than all the urban uses in Southern California.

For years, the parties in Southern California have been anticipating that the day would come when the farmers in the Imperial Valley would see it to be in their interest to begin offering some of that water to be put into the aqueduct that serves the cities of Southern California. That day is now rapidly arriving. The cities have, in some cases, offered to upgrade the distribution systems in exchange for the right to buy the conserved water. They, in other negotiations, have made arrangements with some of the irrigation districts to say, "In drought years we will pay you to fallow your land so that a limited water supply will be available in the urban areas." Those discussions are, I think, moving much more rapidly now. Our position has been that in this new world of water management, what the Bureau should do is facilitate these discussions and do everything it can to allow the parties themselves to define where the public interest lies.

What we're in fact saying is, "You find some consensus, and absent any major issues, we'll be there to facilitate it." The issue has been complicated a bit because of some unresolved issues between San Diego and Los Angeles. San Diego can get water under the existing infrastructure only through the Metropolitan Water District and the Colorado Aqueduct. Those issues have not been entirely resolved. There has been talk that maybe a separate aqueduct would be feasible in the future. There have even been discussions with Mexico about whether or not there might be infrastructure which could use Mexico's international allotment more effectively, bringing it in toward Tijuana. The important thing, I think, is that the issues are joined really for the first time. I think the California parties are all of a mind to try to figure something out, and I think that's enormously encouraging. It has tremendous implications for Northern California, as you suggest in your question.

LAKE MEAD WATER MANAGEMENT

Mr. FAZIO. It's always of importance, as well, to Nevada and Arizona as to how the Colorado water is allocated, and, I guess, Lake Mead is a great source of security for all the parties because the impoundments there are usually available in a dry year. Does the Department have a position on how the Lake Mead water will be managed in this context?

Secretary BABBITT. Well, these are obviously very sensitive issues because——

Mr. FAZIO. I always enjoy them for that reason.

Secretary BABBITT [continuing]. The operation of the river system, the so-called Law Of The River, really is of Talmudic complexity. It has nourished generations of lawyers, and economists, and engineers, and it's clearly a growth industry. Now, having said that, one thing comes through very clearly, and that is that if you look at the large picture in the Colorado River Basin, there's adequate water for the next century. It's really an issue of how it is you effect transitions in ways that fit with the political system and the various parties. Hoover Dam and Lake Mead are central to that process because any of these use and allocation agreements inevitably come back to the storage capacity of that reservoir, and there are ways of increasing the storage capacity of these reservoirs.

It really turns on several concepts. One is the operating criteria; that is, how full do you fill them at what time of year and how far can you draw them down. This is an oddsmaker's and a mathematician's delight. You know, in theory you can draw the reservoir empty every year if you felt that there was never going to be another dry year. Do you draw down 20 percent, 25 percent, 30 percent, 18 percent, 70 percent? It finally all depends upon perceptions of risk and many other things. There are also concepts called water banking in which parties are now saying, "Well, maybe we'd like to store some of our entitlement on top of the reservoir but with the understanding that as more water comes into the reservoir we might lose our water as it spilled over the top." Again, the remarkable thing is not that there is yet any solution or any agreement, but that the parties have really joined in the search for consensus.

O&M BUDGET REDUCTION—SAN LUIS UNIT

Mr. FAZIO. Well, this will be a topic for further discussion because I know it's probably going to be a crucial decisionmaking point that we'll be coming to rather rapidly this spring. I appreciate your comments. I think that Commissioner Martinez would be best prepared to answer this one but if others wish to become involved that's fine with me. When this committee was in conference on last year's bill, we were in a position of having to find some savings and we cut the O&M budget for the Bureau by $15.7 million. The conferees directed that the allocation of the reduction not allow the most critical maintenance needs be ignored and at the same time indicated that we felt that we should derive a significant share of the reduction below the budget request from associated O&M programs. And yet when the Bureau's reduction was made you took half of it, about $7 million, from the San Luis Unit, which is about 85 percent of the O&M funding for that one unit. I'm wondering if you could indicate why that occurred and whether or not that really is in conformance with the instructions of the conference committee? If others have been involved in this, as I say, I would be more than happy to hear from others.

Mr. MARTINEZ. I don't, Mr. Fazio, I don't know the particulars on this but I am a little aware of the issue. It's my understanding from our budget person here that we did reduce our associated O&M expenditures by about $8 million.

Mr. FAZIO. That's the other half of the reduction.

Mr. MARTINEZ. But there was a $7 million reduction on the San Luis Unit, and I think that we can probably provide you a detailed answer on that. Ms. Beneke might have a little bit more information than I do on it, but I share some of the concerns that you probably have.

Mr. FAZIO. Well, it seemed to be a little too heavily impacting one unit when the hope was that the associated O&M programs would obviously be hit, but so would others in proportion to the O&M accounts. It seemed to be a targeting, in effect, a singling out of one, and I wondered what criteria, what standard, would apply that would make that appropriate.

Ms. BENEKE. I can just provide a bit more information, perhaps, but I think that we do need to give you a detailed answer for the record, sir. It's my understanding that this is, in some fashion, connected with funding for the Shasta temperature control device. To give you the best, most thorough answer, we need to do it in writing, but I do want to reiterate the committee had given us a direction to take a cut out of associated O&M and we proceeded, and did that.

Mr. FAZIO. Well, of course, we're very interested in getting the temperature control device installed but the concern that I have, obviously, is that because that's from the separate fund that was derived from the Miller-Bradley Act's enactment, we don't want that to become a way of, in effect, reducing the burden on the Bureau's budget in other areas. I mean, we'd like that to advance the cause and not allow for cost shifting, in effect, to occur. Do you understand my concern?

Ms. BENEKE. I do, yes.

Mr. FAZIO. Yes, okay, well, I would appreciate further information on that.

[The information follows:]

SAN LUIS UNIT O&M REDUCTION

In Associated Programs activities, the reduction allocated was $10 million in response to the direction in the House report. The reduction of $7 million in the San Luis Unit was made in response to direction in the Senate report which the Senate specified the amount for the Unit as $1,293,000 instead of the $8,293,000 requested. It is believed that the Senate made this reduction in order to support the addition of $19 million for the Shasta Temperature Control Device, which became necessary when the State of California failed to provide the $20 million in cost sharing for the TCD that was assumed to be received when the budget was submitted. Similarly, the Senate directed a reduction of $1,366,000 in Central Valley Project Improvement Act activities. After Conference action, Reclamation restored $2.7 million to Associated Programs primarily in the area of Safety Evaluation of Existing Dams.

Mr. FAZIO. Mr. Chairman, I don't want to—I know we have two other members present. I'm willing to stay around if you want to go to Mr. Chapman. Mr. Frelinghuysen? I know he has interest in the area, so maybe I could withhold and come back.

Mr. MYERS. Okay, thank you. Mr. Chapman?

REPRESENTATIVE JIM CHAPMAN'S OPENING REMARKS

Mr. CHAPMAN. Mr. Chairman, thank you, and I really don't have a series of questions this morning. What I would like to do is welcome the new Commissioner, welcome back the Secretary, and simply say that as one member of the House I want to thank Secretary Babbitt for his support of the work that's being done in wetlands management in the First Congressional District. I understand that there is a trip scheduled to our neck of the woods and I want to take this opportunity to say I think you're really going to enjoy that trip and be surprised at the visit. And I want to thank you very much on behalf of my constituents for your encouragement and support of the activities, an entire range of activities, that are occurring in East Texas by virtue of the cooperation—I might say an unprecedented cooperation among both Federal, State, and local management agencies in the project that exists there. I want to tell you, Mr. Secretary, that it is making a huge difference in the lives, not only in the environment and the protection of assets that are very important in East Texas, but it's making a huge difference in the lives of the people that live there as well, and I want to thank you very much for your support and the support of the Bureau in those efforts. Mr. Chairman, I—you know, that's all. It doesn't require any comments other than that.

Secretary BABBITT. Well, with the Chairman's permission, I can't refuse or pass up the opportunity to respond. I actually had put together a pilgrimage to Caddo Lake——

Mr. CHAPMAN. I like that word.

Secretary BABBITT [continuing]. Some weeks ago, as I made my way across Louisiana through Lake Pontchartrain, Lafayette, Baton Rouge, and was actually on my way to Shreveport to see this Mecca of East Texas, natural glory, when I was called back for a

Cabinet meeting. I must say judging from the response of people in Louisiana this really is a pretty special place, notwithstanding its location mostly across the line in Texas. Even the Louisianans seem to say that this really is a pretty special place.

Mr. CHAPMAN. Well, I hope it works that you can renew that journey, and, you know, we are fond of saying that it is the Promised Land. You got very close, apparently, but didn't quite make it all the way. I hope your travels will give you an opportunity to finish that and I do want to thank you very much for your support in those efforts. Mr. Chairman, that's all I have. Actually, I know that Mr. Fazio and others have some probably more in depth inquiry but I appreciate the opportunity.

ANIMAS-LA PLATA PROJECT

Mr. MYERS. I'll take a few questions now while we're waiting for a chance to catch up here. Animas-La Plata has been discussed here this morning and it was authorized about the time Mr. Bevill and I came on this committee, and we expected it to be built by the time we got off of it. Where did we go wrong? Or did we?

Secretary BABBITT. Sir, I don't think it did. I don't think it did at all. I think that the climate in which we build water projects is changing, evolving, and there are a number of issues that converged during this time frame. The judicial application of the National Environmental Policy Act—I mean, it's really quite extraordinary. Glen Canyon Dam is an extraordinary structure. It was authorized, I believe, in 1956. The first bucket of concrete, was poured there, I think, in 1956, and the gates were closed in the mid-sixties. So from authorization to completion of one of the largest dams in the world was approximately 7 or 8 years.

The upper basin units that were part of the subsequent 1968 authorization bill—Dallas Creek, Animas-La Plata, Dolores—were at the end of the appropriation line, and began to intersect with the changing judicial application of the National Environmental Policy Act, the Endangered Species Act, Section 404 of the Clean Water Act, and a lot of these simply disappeared.

The Narrows is another one on the Platte drainage. The Two Forks Dam on the South Platte was killed by the Administrator of the Environmental Protection Agency under Section 404 in a very unpredictable environment because these laws had not been worked out into a stable, predictable way. What we have seen with Animas-La Plata is one kind of barrier after another that we have to go across. It's not been easy. The NEPA process has been complex. It's been bounced back by the courts, as you well know, several times. The Endangered Species Act has been very complex for a variety of reasons, not the least of which is the Navajo Indian Irrigation Project immediately downstream. The Navajo Indian Irrigation Project was funded relatively long ago and it's still not done. The draw on the San Juan River for that project is now having its effects felt upstream at Animas-La Plata, and that has in turn given rise to litigation over the Endangered Species Act. I suppose one can despair and say, you know, this will never happen. I don't think you need to draw that conclusion. It's a fact of life that we are crossing these hurdles one by one and we're crossing them faster than they are being imposed.

Mr. MYERS. I question that.

Secretary BABBITT. This is a moving target but I believe we are progressing toward a conclusion and that the will of this committee will be done. Now, the other thing that happens, and I've seen this with the Central Utah Project, I've seen it with the Central Arizona Project and every other modern project, is that the projects are inevitably reconfigured on their way to execution. We've gone through this again, and again, and again.

Mr. MYERS. This one has, too.

Secretary BABBITT. And this one has, too.

Mr. MYERS. At least more than once, I figure.

Secretary BABBITT. More than once, absolutely. Not to belabor the point, but we went through this on the Central Arizona Project. You look at that project—there were dams authorized, deauthorized, modified, reconfigured, but the fact is the project's done. It's operating and the water use and storage issues have all been met. I think the same thing is going to happen here.

Mr. BEVILL. What would happen—if I may? Excuse me, Mr. Chairman.

Mr. MYERS. Sure.

Mr. BEVILL. What would have happened if we didn't have the Central Arizona Project?

Secretary BABBITT. Well, my job wouldn't be nearly as interesting, and the future of Arizona would not be nearly as secure.

Mr. MYERS. Well, the years we have been on this, Mr. Bevill and I, have been on this committee, it's been modified, it's been litigated. We have tried to compromise with the "environmentalists." The EPA has been at arm's reach as far I have known up until now, but now I am concerned that every time we—I say "we," the Animas-La Plata promoters can be proud to compromise with the two Indian tribes. We made a commitment to them at least twice and it's been broken, not because of our fault, and the patience of this committee is kind of running out. You say that you're ahead of them. I know I'm not sure you are. I recently have read where the EPA now is threatening to—they want to go the White House. Well, so what? Harry Truman once had a project that he invited the Corps in to ask them, you know, about the project, and they gave about 15 reasons why they couldn't, but then he said, "I want you to tell me how you are going to build it." This is what I think that we need to hear, the strong resolve here, and I thought we did it last year in the language we put in which was as strong as we could under the rules of the House today, that we want this project moved forward and we want the commitment to the Indian tribes, to the people out there, honored. And I don't know if I blame you, but as slow as we're moving. Now, last year you gave us a schedule, if I recall. The environmental impact statement will be prepared, the approval of it, anyway, would be in December. Now you say June. What happened? Whoever wants to answer that—we've fallen behind.

ANIMAS-LA PLATA SUPPLEMENTAL EIS

Secretary BABBITT. Chairman, I understand your frustration. I genuinely do. These things don't get any easier. This project is even controversial within the Indian tribe now. Tribal elections are being fought out over this. It is a difficult process. I believe we are moving forward. The environmental impact process is being supervised by litigants in front of a court. Our belief is we've made our way through that. We're going to have the supplemental EIS released.

Mr. MYERS. But we've done that before; we've been over this road before.

Secretary BABBITT. That's right.

Mr. MYERS. At least twice.

Secretary BABBITT. That's correct.

Mr. MYERS. But I've covered the score here, I guess, and I shouldn't have because Mr. Bevill and I the last 10 years have been really strongly advocating to honor our obligation, and we have a legal obligation. I called it—agreement with the Indians is like a tribal agreement. It's similar to a treaty, as far as I'm concerned. It ought to be honored as a treaty, and those are above the constitutional question. But EPA now is coming in talking about the economics of the Animas-La Plata. I don't think that is their jurisdiction, whether it's economically viable to do it or not. Whether it is or not, we have a legal obligation now. We're beyond that point to decide whether the benefits outweigh the costs. We have a, I think, contractual and a court-decided decision here. We made an agreement, and the courts had signed, and the Bureau of Reclamation made an agreement with the Indians to honor this—several years ago. I think it was 1988, wasn't it?

Secretary BABBITT. Probably it was.

Mr. MYERS. The last one.

Secretary BABBITT. That's essentially correct. We have a water rights settlement with the Ute Tribes. The efficacy of that settlement is conditioned upon the provision of a water supply from the San Juan River drainage. That's absolutely correct, and I think that's an obligation that we must meet.

Mr. MYERS. Now, after it is done in June, when will the record of decision be made? Is that going to be done in June?

Secretary BABBITT. I cannot tell you precisely. I'd be happy to respond in writing to that.

Mr. MYERS. Okay.

Secretary BABBITT. There are some, inevitably, decision issues between the EIS and the record of decision, but I can respond in writing to that.

[The information follows:]

ANIMAS-LA PLATA RECORD OF DECISION

Given National Environmental Policy Act procedural requirements, the Record of Decision can be signed no sooner than 30 days after the filing date of the final Supplement to the Final Environmental Statement. We intend to file the Supplement as soon as possible.

Mr. MYERS. Okay. You spoke about the disagreement within the Indian tribes, but I think it's been resolving itself. You're never going to get everyone in complete agreement. You're always going to have a feud, but I think they had elections out there. My understanding is the supporters of the Animas-La Plata Project won the election. They were contested but—actually, we all have been contested here, but we still have to move forward, and I—we're just concerned—so please keep us informed.

SALMON RECOVERY PROJECTS

I'm concerned also about the cost of the salmon recovery projects. I don't know who wants to answer that but it's—the cost just keeps going up.

Secretary BABBITT. I'd be happy to take a crack at that. Do you have specific questions——

Mr. MYERS. Well, the cost.

Secretary BABBITT. As I recall——

Mr. MYERS. There is a cost, it's escalating. It's going up now.

Secretary BABBITT. It is indeed. The cost projections are being driven by a biological opinion from the National Marine Fisheries Service, which sets out stream flow targets in the Snake and Columbia River basin. Those water flow targets are a function of a whole variety of actions by the Corps of Engineers, by the participating parties, and by private dam operators. The piece that appears in this budget is the contribution from the Bureau of Reclamation for projects on the Snake River in Southern Idaho.

Mr. MYERS. Now $109 million, is that right? What was your request this year?

Secretary BABBITT. I believe——

Ms. BENEKE. Fifteen million.

Mr. MYERS. Okay, the Bureau of Reclamation has a share of it.

Secretary BABBITT. Yes, yes. All things considered, the way in which the Bureau is approaching the water delivery issues in Southern Idaho, Mr. Chairman, is pretty good. The farmers are willing to relinquish the water. The Idaho legislature has agreed on an interim basis to allow the transfers to take place under Idaho law, and I would respectfully suggest that this is a solid approach. I would venture an opinion that it is not the ultimate answer, that these biological opinions are kind of keeping this process together pending a broader solution. There's a gathering debate, I think, about how it is we handle the systemic issue, the Columbia River, rather than doing it by bits and pieces among endless agencies and endless stocks of fish. We're going to have to find a new and more efficient, and biologically effective, combination. It may, in fact, ultimately require legislation.

Mr. MYERS. Well, do you have any idea what it's finally going to cost?

Secretary BABBITT. Mr. Chairman, the answer is clearly "no." Now, let me just give you two specifics that might indicate the complexity. The letter that Ms. Rivlin wrote from the Office of Management and Budget some months ago capped the Bonneville Power Administration contribution for the next several years overall, all the way across the system, at approximately $400 million.

Ms. BENEKE. $435 million.

Secretary BABBITT. $435 million. Now, alongside that, I think one should have a look at the National Research Council report. It's a very important document put out by the National Academy of Sciences raising some very important questions about the cost effectiveness of this and laying out both scientific and economic considerations. So what we are in effect doing, I think, is buying time to get a better consensus and some better science. I don't think that necessarily will mean more money. It may mean less.

Mr. MYERS. Well, I mentioned benefit-cost ratio. This committee has to constantly consider for any programs or any projects that we consider here, the benefit-cost ratio, which has to be better than parity. We have to have some return to the taxpayers. Unfortunately, when it comes to the environment we ignore benefit-cost. What's that going to cost to save each salmon? Do we put a dollar value on a salmon? I like salmon, but I'm not sure I like them that well.

Secretary BABBITT. Well——

Mr. MYERS. For the taxpayer's sake. I mean, it's—aren't there other alternatives to spending all this money to save the salmon? It's almost ridiculous.

Secretary BABBITT. Mr. Chairman, what the National Research Council points out is that in the current system there is a whole structure of laws that don't mesh together particularly well. The position of the National Research Council is that there may be much more cost effective ways of spending this money, and that there may be some forms of triage, if you will, that are very appropriate in the Columbia River basin. That is, spending dollars where you get the most bang for the buck, and that is not necessarily happening in this system right now.

Mr. MYERS. Well, that is our feeling. I'm glad to hear you say this. Maybe we ought to just take it down and take another look at it or—let our technology catch up with our pocketbook.

Secretary BABBITT. Mr. Chairman, I would respectfully suggest that the most useful thing to do now is to keep this agreement together because if it falls apart the parties will be back in court. What we have learned, I think Mr. Bunn can attest to it, is that when these things get into the hands of Federal courts, the results are almost always unpredictable and often worse for the simple reason that the complexity and the trade-offs, the economics, the biology, are not most appropriately resolved in Federal courts. The Rivlin letter, and the biological opinion, I believe is a place marker that is going to give us a couple more years to find some larger, more comprehensive, more cost effective, more scientifically effective solution to this.

Mr. MYERS. But if we slow down just a little bit and let these 2 years catch up, there's not going to be any serious damage?

Secretary BABBITT. No.

Mr. MYERS. OK.

Secretary BABBITT. That's the importance of the biological opinion. They've said you can do that.

Mr. MYERS. OK. I have another question but at this time I will recognize Mr. Frelinghuysen.

REPRESENTATIVE RODNEY P. FRELINGHUYSEN'S OPENING REMARKS

Mr. FRELINGHUYSEN. Thank you, Mr. Chairman. If you'll give me the latitude of water supply and quality, I'd like to ask the Secretary first of all a few questions. Let me thank you, Mr. Secretary, for visiting my, to use Mr. Chapman's words, neck of the woods last years, the Great Swamp in Northern New Jersey. I think your physical presence did a lot to raise visibility about how important that swamp is and I do have some questions that relate to the swamp. And I've bugged you on a number of occasions last year at a few dinners in terms of more money for the swamp, but my specific questions initially go to a piece of property which you're probably aware of known as Sterling Forest. And many members, on both sides of the aisle, were keenly interested in getting that property, and I'm sure that on a number of occasions you've been asked your opinion about the purchase of that property and have been asked to participate. And certainly you are aware that there are some people who want to—have been talking about ways to accomplish that objective. As you're aware, there's a clean and simple bill, H.R. 400, which would move ahead with the Federal purchase of that property. It's not encumbered by any discussion or inclusion of land swaps, and I just wondered if you're familiar with that bill, whether you endorse the notion that we should purchase this property. I think you're aware that somewhere between 2 and 3 million people depend on their water supply coming from that part of, small part of, New Jersey, but mostly in New York State. I was wondering if you could comment and reinforce what you have said on other occasions.

STERLING FOREST

Secretary BABBITT. Mr. Frelinghuysen, the Sterling Forest is an important piece of open space in a really critically important developing metropolitan megalopolis in the Northeast. The Administration, to give you a direct answer, strongly supports H.R. 400.

Mr. FRELINGHUYSEN. So the President would sign it if it were to go through?

Secretary BABBITT. I am never authorized to make those commitments on behalf of the President, but I can say to you I would certainly strongly and vigorously urge him to sign that bill.

Mr. FRELINGHUYSEN. You would like to see, as I would like to see and many of us would, just a clean bill, and I assume that that's what you are endorsing by saying that.

Secretary BABBITT. That's correct.

Mr. FRELINGHUYSEN. All right, I understand that the Interior Department does have the discretion to acquire lands under the Appalachian Trail Acquisition Program?

Secretary BABBITT. That's correct.

Mr. FRELINGHUYSEN. I was wondering since Sterling Forest has the trail going through it whether this might be a possible means to achieve this objective.

Secretary BABBITT. Mr. Congressman, it's a possible route. I suspect that it might encounter some questions in the appropriation process. What we have done in past years is, as you know, included pieces of the Sterling Forest in our overall request for the Appalachian Trail. I wouldn't purport to second-guess your judgement or the judgement of the Congress as to the chances of our appropriation bill carrying that much freight in the absence of a stand-alone bill, but it is possible.

Mr. FRELINGHUYSEN. Well, thank you for reacting to it in a positive way. Relative to the Great Swamp, I know you have a lot of demands for land acquisition, a lot more requests than you have resources, and that's understandable. I just wondered since you were good enough to be there last year whether within the realm of possibility this is a—this important open space and resource, whether there's a possibility at some point in time we could look toward its expansion.

Secretary BABBITT. The answer is "yes." This is a National Wildlife Refuge, a national priority area, and it certainly is appropriate. The issue, of course, is the relative priority set forth by the Fish and Wildlife Service, but if you want my vote, you got it.

Mr. FRELINGHUYSEN. Good, well, I'm glad—that's virtually what you said last year. I'm pleased to have your vote again, and thank you very much, Mr. Chairman. Thank you, Mr. Secretary.

Mr. MYERS. Thank you. Mr. Fazio are you ready for another question now?

CENTRAL VALLEY PROJECT WATER ALLOCATION

Mr. FAZIO. Yes, I could be. Thank you, Mr. Chairman. I wanted to ask a bit of a question in regard to the CVP water allocation. The President's budget proposal requests $8 million for the implementation of the anadromous fish restoration program. We've been talking about fish restoration here. This affects California and the CVP. We are doing a study as to how we must be allocating water to meet some of our goals in our state. We, at the moment, have still a draft of that study, and apparently there's been a decision made, even in advance of its completion, that we're going to allocate 130,000 acre-feet from agriculture to implement part of the plan without consultation or sign off on the completion of the plan. And I'm just wondering why the Fish and Wildlife Service is in a position to do this without having come to closure and having all the stakeholders involved reaching agreement. It seemed to me that the process has been truncated here. Not to say that I wouldn't ultimately agree with the decision, whatever it may be, but it seemed to me the kind of decision that is causing some people to have a lack of confidence in the way in which we're going about sorting out the equities in this area. I don't know who wants to respond——

Secretary BABBITT. Mr. Fazio, I would recharacterize that simply as an anticipatory request. I mean, I don't think that it necessarily means that we are short circuiting the process. Patty, do you want to add to that?

Ms. BENEKE. Yes.

Mr. FAZIO. Nothing has happened, is that what you're telling me?

Ms. BENEKE. I'll chime in on that. It's my understanding that this issue has arisen recently. We are working very hard to try to work it through with the affected parties. I'm advised that those conversations are ongoing, and I'm aware that it is a significant issue.

Mr. FAZIO. Well, I appreciate that because, you know, we are trying to keep everybody working together and——

Ms. BENEKE. Absolutely.

Mr. FAZIO [continuing]. The perception that some have higher priority or can get something accomplished before the process is completed is sometimes undermining of what we're all trying to accomplish.

Ms. BENEKE. I've been advised that the work on this fish restoration plan actually has gone very smoothly. There has been a lot of outreach, a lot of good stakeholder input, and it sounds like perhaps we've hit a little bump on the road, but we're going to continue to work with people.

Mr. FAZIO. That's why I've raised it because I don't want it to get off track——

Ms. BENEKE. Right.

Mr. FAZIO. [continuing]. And it looked like it was about to.

Ms. BENEKE. Right. We are underscoring the importance of consensus wherever we can achieve it.

IMPLEMENTION OF CVPIA

Mr. FAZIO. I wanted to commend to all of you the work that Deputy Secretary Garamendi is doing out there. We've had a real effort to bring our retrospective look at the Miller-Bradley Act to the attention, I know, of the Department through legislation, but we're also going through a very laborious, intensive process with water users, both urban and rural and working in the environmental community to see what we can do to sort out some of the problems with implementation of the CVPIA. I know you're working administratively to resolve a lot of them under his leadership. I'm wondering, though, if we can kind of bring it to closure, come to an end, because it's now, I think, time to try to deliver. Between now and the end of the session, I think the question of whether legislation will move forward is hanging in the balance, and I really think that there are some issues that could be addressed in terms of some consensus conclusion. For example, in December, the Department released a draft policy regarding the treatment of water rights settlement contracts in the Sacramento Valley. Four months later, we've had no decision. Lots of talk and yet we still are without an ultimate decision. You may know that's one of the reasons I joined in on this legislation, because I had a completely different understanding of how they would be treated by former Commissioner Beard when he was actually staffing Mr. Miller on that language. Never did I get confirmation of what the agreement we had made verbally exactly amounted to. So I'm looking to try to get that issue resolved here, and I'm wondering if you can update us as to the status of that determination.

Secretary BABBITT. This is with respect to the paydown of the accumulated balances.

Mr. FAZIO. Well, that's one of the issues that's involved but I'm specifically talking, and I think Ms. Beneke can speak to that——

Ms. BENEKE. Right.

Mr. FAZIO [continuing]. On the water rights settlement contracts. Those people who had prior rights before Shasta Dam was built, before the CVP was built, we understood they would maintain their status within the water district community.

Ms. BENEKE. That is an issue that we have been looking at very carefully. Under Deputy Secretary Garamendi's leadership there have been discussions ongoing about it. We have been conferring with the Solicitor's Office on the interpretation of that provision of the CVPIA. As I understand it, Mr. Garamendi is out in California, I think, even as we speak.

Mr. FAZIO. Good.

Ms. BENEKE. He is hoping to move issues such as this one towards resolution on a consensus basis. That is certainly an issue that is very high on my list. I know it's very high on his list, and I would hope that we could have an answer for you quite soon.

Mr. FAZIO. Well, I just wanted to add to the urgency. I think these are some of the issues that will have an effect on what happens legislatively in terms of the Resources Subcommittee's activities. I have a question on CVPIA from Congressman Dooley that I'll place in the record at this point.

[The information follows:]

QUESTIONS SUBMITTED BY THE HONORABLE CALVIN DOOLEY

TRINITY RIVER FLOWS

Mr. Dooley. Secretary Babbitt, the Central Valley Project Improvement Act (PL 102-575) dedicates a minimum of 340,000 acre-feet of Central Valley Project water to Trinity River fishery enhancement objectives. Section 3406(b)(22) of the Act also provides the Secretary of the Interior with authority to further increase Trinity flows upon completion of the Trinity River Flow Evaluation Study. What is the status of the Trinity River Flow Evaluation Study?

Mr. Babbitt. I understand the Flow Evaluation Study is a 12-year effort that is now in its last year. A final summary report being written includes background information, hydrology and geomorphology, habitat availability, sediment transport, channel maintenance, water temperatures, and flow recommendation. The main focus is on Chinook and Coho Salmon and steelhead trout. The report is now going through an informal review process.

Mr. Dooley. When will it be completed?

Mr. Babbitt. I have been informed we are in the final year of this study. The Draft Environmental Impact Study will be out in the summer of 1996 and the Final Environmental Impact Study will be out later in the year.

Mr. Dooley. When do you expect to report your recommendations to the House and Senate authorizing committees, as required by the CVPIA?

Mr. Babbitt. Trinity River flows are one of several components we are analyzing in the Environmental Impact Statement. I expect that in December 1996, after the flow Environmental Impact Statement information is available, we will contact the authorizing committees.

Mr. Dooley. How is the Department ensuring that the recommendations for Trinity River flows will be based on the best available scientific data, as required by the CVPIA?

Mr. Babbitt. The Trinity River Flow Evaluation and Restoration Programs have been intensive efforts that are unique and on the cutting edge of technology and scientific knowledge. The biologists and scientists associated with these programs have analyzed information and acquired knowledge that are ahead of most other efforts. We think we have attained the best available scientific data because other scientists in this field look to these programs seeking our expertise.

Mr. Dooley. Will the methodology and conclusions of the flow evaluation study and its environmental impact analysis be subject to peer review?

Mr. Babbitt. I understand formal peer review is not currently planned, but that efforts will be made to resolve any disagreements among those taking part in the analysis. We will widely distribute the EIS and solicit comments from interested parties. If dissenting opinions cannot be resolved through this process, we will attach these opinions to the report for reference.

Mr. Dooley. Increasing Trinity River flows will result in less water being available to CVP customers, especially those south of the Delta. How will your Trinity River flow recommendations take into account possible adverse impacts on water supplies, power generation, the environment, and the economy of the CVP service area?

Mr. Babbitt. The Trinity River EIS will not address in depth impacts of reducing diversions through the Whiskeytown Tunnel. The programmatic EIS on CVPIA implementation will address all impacts of project operation.

Mr. Dooley. Is it the Department's goal to minimize any adverse impacts in the CVP service area resulting from increasing Trinity River flows above the current level of 340,000 acre-feet?

Mr. Babbitt. In addition to operational changes in flow regimes, we are also looking at mechanical means of mitigating adverse affects on fishing habitat. These measures will be analyzed to determine the magnitude of potential impacts.

Mr. Dooley. If yes, how will this be accomplished? If no, why not?

Mr. Babbitt. Work will continue in the watersheds and tributaries that will ultimately ease the burden on mainstream flows to restore the fishery.

Mr. Dooley. We are aware that economic impacts are being assessed as part of the environmental impact analysis currently underway for the Trinity River Flow Evaluation Study. However, the CVPIA does not require that any recommendation for increased flows be based on the EIS. Can you foresee any circumstance under which the Department's final recommendation on Trinity River flows would not be supported by the EIS?

Mr. Babbitt. The EIS will analyze a number of alternative flow scenarios. The flow program we conduct will be within the range of those analyzed in the EIS. I believe that we need to proceed carefully in those areas where there is not complete scientific agreement.

Mr. Dooley. While the CVPIA does not require that the final flow recommendations be put out for public comment, it is clearly within your discretion to invite public review of your recommendations prior to their implementation. Do you plan to invite such a review?

Mr. Babbitt. I understand it is a NEPA requirement to encourage public comment. In fact, public interaction has been encouraged at each phase of the process.

Mr. Dooley. How will the Department's Trinity River flow recommendations reflect the need for CVP operations that are predictable and reliable under a variety of conditions?

Mr. Babbitt. It is my understanding that most of the alternatives that are being considered in the flow EIS include schedules that are based on water year types. By April of each year the water year type will be designated and a schedule of flows for May 1 to September 30 will be announced.

KESTERSON REPAYMENT

Mr. Dooley. Secretary Babbitt, will the Department of the Interior support a provision in the appropriations bill that authorizes the Secretary to reclassify and collect costs associated with the Kesterson Reservoir Cleanup Program and the San Joaquin Valley Drainage Program in accordance with the alternative methodology described in the Bureau of Reclamation's "Repayment Report" of February, 1995?

Mr. Babbitt. Under law, all Cleanup Program costs are reimbursable by contractors entitled to San Luis drainage service. However, if the Congress so directs, we would not object to the Alternative Repayment Plan for the repayment of the costs associated with the Kesterson Reservoir Cleanup Program.

CVP REFUGE WATER SUPPLIES

Mr. Dooley. The Refuge Water Supply Report codified by the CVPIA was the result of a study conducted in the late 1980s using early 1980s data. Was the Refuge Supply Investigation and Report subjected to peer review or any other independent examination to ensure the validity of its conclusions?

Mr. Martinez. Chapter V of the 1989 Report, entitled "Consultation and Coordination", documents the review process. Additionally, Attachment C of the report lists the persons contacted during the formulation of the report. Meetings were held with environmental and wildlife organizations, water and irrigation districts to solicit input on the study objectives, issues and concerns and planning procedures. Two informational documents were released to more than two hundred agencies, organizations, and individuals.

Mr. Dooley. What has the Department done to ensure the validity of those conclusions in light of data gained since passage of the CVPIA in 1992?

Mr. Martinez. Reclamation began implementation of CVPIA with the water year beginning March 1993. During the three years of implementation, the water supplies to refuges have been subject to deficiencies in water supplies, a preliminary injunction due to litigation, and insufficient facilities and/or restrictions to delivery that have not permitted full implementation of CVPIA to all refuges as authorized. The water year beginning March 1995 has been the only year in which full deliveries were available to all the refuges. However the delivery constraints, primarily to the Sacramento National Wildlife Refuge Complex, have not been reconciled and those refuges were unable to fully utilize their allocation. Therefore, Reclamation feels there is not sufficient information to ensure the validity of the needs identified in the Refuge Water Supply Investigation Report. The conclusions of the Report were based upon several years of investigation, and until the refuges have had several years of firm water deliveries, it will not be possible to validate the conclusions. In spite of some of the delivery constraints, the refuge managers are all reporting excellent response by wildlife resources through improved and more efficient management of wetland habitats.

Mr. Dooley. Does the Department plan to review and update the Refuge Water Supply report in light of more recent data gained from three years of firm refuge water supplies? If no, why not? If yes, when?

Mr. Martinez. Yes. Each refuge manager has been asked to evaluate the refuges that they manage in an open and public forum to assure a comprehensive and responsive evaluation report. The evaluation report is expected to be completed by the end of 1996.

Mr. Dooley. What were the sources of funding for the Refuge Water Supply Investigations?

Mr. Martinez. Funding sources for the report included appropriated funds and contributions from California Department of Fish and Game and Water Resources, California Waterfowl Association and Grasslands Water District.

Mr. Dooley. How much "Level 2" water was delivered to each wildlife refuge or private wetland in each of the last three years. How much "Level 4" water was delivered to each refuge or private wetland?

Mr. Martinez. I will be glad to provide that for the record.

(Information for the record)

The following table depicts the total deliveries of "Level 2" and "Level 4" waters for each refuge by calendar year. Under Reclamation's current water accounting system, refuge water supply deliveries are accounted for by totals and not individually tracked by "Level 2" and "Level 4" quantities. The process to refine the system to account for these quantities separately is under way.

Due to drought conditions in 1994, a water supply of 75 percent was provided to the refuges south of the delta. In 1994, a court injunction was imposed against "Level 2" deliveries to all refuges. From 1993 through 1995, a 10 percent annual incremental increase of "Level 4" supply was made available. Refuges listed with zero deliveries are either utilizing historical water supplies or do not have the distribution systems necessary to take delivery of the available water supply.

CENTRAL VALLEY PROJECT WATER SUPPLY DELIVERIES TO REFUGES FOR CALENDAR YEARS 1993, 1994, AND 1995			
	1993	1994 (Drought Conditions)	1995
Refuges North of the Delta	L2 (100% Supply) & L4	L2 (Injunction on deliveries) & L4	L2 (100% Supply) & L4
Colusa NWR	9,924	12,674	11,866
Delevan NWR	18,447	16,508	14,863
Gray Lodge WMA	17,045	16,156	29,750
Sacramento NWR	28,805	28,583	29,696
Sutter NWR	0	0	0
Modoc NWR	0	0	0
Refuges South of the Delta	L2 (75% Supply) & L4	L2 (75% Supply & Injunction) & L4	L2 (75% Supply & Injunction) & L4
Grasslands WMA	130,463	105,442	139,759
Kern NWR	15,040	10,304	13,960
Kesterson NWR	10,000	10,000	10,000
Freitas	2,869	3,315	5,485
Los Banos WMA	14,781	14,511	14,157
Mendota WMA	24,200	22,062	27,453
Merced NWR	0	0	0
Pixley NWR	0	0	0
San Luis NWR	19,000	19,000	19,000
West Gallo	1,554	613	500
East Gallo	0	0	0
China Island	0	0	0
Salt Slough WMA	0	0	0
Volta WMA	0	0	0

Mr. Dooley. What was the cost of making Level 2 and Level 4 deliveries to each refuge or private wetland in each of the past three years?

Mr. Martinez. The total cost of conveyance and acquisition contract costs for Level 2 and Level 4 water supplies in each of the three past calendar years is as follows:

1993	$0	(No contracts in place)
1994	$3,752,409	
1995	$2,296,027	

Mr. Dooley. As measured by prices paid by agricultural districts in the same Division, what was the value of Federal CVP water delivered free of charge to private wetlands during the past three years?

Mr. Martinez. During the past three years CVP water delivered to the Grasslands Resource Conservation District, the only such private wetland, had a value of $7,200,000, as measured by prices paid by agricultural water users in the same service area.

Mr. Dooley. What steps has the Department taken to ensure that refuge water supplies are managed efficiently on both public and private wetlands?

Mr. Martinez. Reclamation annually requests the managers of the wetlands, both public and private, to provide schedules for the use of their water supplies that reflect their estimated needs which can be used in an efficient and beneficial manner. The wetlands management agencies, U.S. Fish and Wildlife Service, the California Department of Fish and Game, and the Grassland Resources Conservation District, have indicated a willingness to comply with the existing criteria on Best Management Practices and Efficient Water Use Practices. Each agency has existing programs, or has initiated a process under which efficient use of water supplies and best management practices are documented. As long-term water service contracts are negotiated, efficient water use and conservation planning will be included.

Mr. Dooley. During the past three years, how many times have refuge water supplies been reduced because of drought conditions? What was the impact on waterfowl populations? Have Central Valley waterfowl populations increased or declined overall since passage of the CVPIA?

Mr. Martinez. In 1993, refuge water supplies were reduced by 25 percent in refuges south of the Delta. Refuges north of the Delta were allocated 100 percent of their authorized supplies in that year. Supplies were reduced again in 1994 for all refuges. Also in 1994, a preliminary injunction was imposed on the implementation of Public Law 102-575, Section 3406(d)(1) which further impacted water supplies until Reclamation completed an environmental assessment on the provision of those water supplies for the 1994-1995 water year. The wet year conditions in 1995 resulted in the allocation of the full authorized supplies to all refuges.

During the years with deficiencies, waterfowl populations were still recovering from the severe drought of the 1980s on their breeding grounds in Canada and the northern States. Therefore, the deficiencies to refuges affected the quantity and quality of valley wetland habitat for waterfowl that winter. The conditions on the breeding grounds for waterfowl production have markedly improved in the 1990s. This has resulted in recovery of populations. The firm water supplies provided to refuges have improved habitat quality for birds as they return to their breeding areas. The annual mid-winter waterfowl inventory conducted by the U.S. Fish and Wildlife Service and California Department of Fish and Game indicates that waterfowl populations in the Central Valley were the highest they have been since the early 1980s.

Mr. Dooley. What steps has the Department taken to ensure that there is adequate conveyance capacity to simultaneously fulfill refuge water supplies needs and contractual obligations to CVP agricultural and municipal customers?

Mr. Martinez. Reclamation is working with the State of California to identify and utilize opportunities to use State facilities for conveying refuge water supplies. The State is examining refuge delivery patterns and available capacity at Banks, the State pumping facility in the Sacramento-San Joaquin Delta, to identify the capability for meeting fall refuge demands. It is anticipated that the State will have unused capacity beginning in the October to November time-frame which may be utilized for conveying refuge supplies with minimum impact to State water contractors. However, most of the refuge demand is between August and the end of October. The two scenarios currently being addressed for using State facilities are:

Scenario 1: The State fills San Luis Reservoir in mid-October through mid-November; thereafter, Banks meets the direct demands for refuges, using capacity at Banks in excess of what the State needs to meet their direct demands. This is likely sufficient to meet refuge demands from the fill point through December. However, most of the refuge demands occur earlier than this and refuge demand filled would be limited to 40,000 to 80,000 acre-feet.

Scenario 2: The State is certain of filling their share of San Luis Reservoir so Banks pumping and/or San Luis Reservoir storage is used to meet August through December refuge demands. This has the effect of delayed filling of the State's share of San Luis Reservoir and uses the State's storage in San Luis Reservoir for which they would be compensated. This would meet the full late summer and fall refuge demand of 175,000 to 200,000 acre-feet.

REDUCTION IN FISH SCREEN PROGRAM

Mr. FAZIO. I also wanted to ask some questions about fish screens. I wanted to thank the Commissioner and the Department for including funds for GCID, and I have some questions I'd like to ask for the record about the future expenditures on the fish screen on that very important outtake on the Sacramento River, but I'd wanted to ask more generally about the reduction in the fish screen program. The funding level is about half in this year's budget of what it was last year, and yet the burden on all the contractors on the river and, of course, the environmental urgency, continues to run apace. I'm wondering why we may be dropping back in our commitment to dealing with this problem when we all understand we need to push on. Mr. Martinez, do you have any information on that? If not, perhaps—

Mr. MARTINEZ. Quite frankly I've not been involved to this date too much on California issues.

Mr. FAZIO. They are time consuming. As this committee has learned.

Mr. MARTINEZ. Deputy Garamendi has been taking the lead. I am learning the process. I will be glad to work with you on these issues and provide you direct responses to your questions, and through the procedure, unless Ms. Beneke, has an answer at this point in time.

Ms. BENEKE. We were pleased that we were able to work with the parties at Glenn Colusa, on the particular issue that they had raised. In terms of the overall funding for fish screens, I'm going to have to give it to you for the record.

Mr. FAZIO. Okay.

Ms. BENEKE. I know that it is a priority and is very important work, and we'll be pleased to respond in writing.

[The information follows:]

CENTRAL VALLEY PROJECT FISH SCREEN PROGRAM

The President's budget request includes $5.0 million for the fish screening program in FY 1997. This reflects a slight reduction from the FY 1996 request of $5.75 million.

FEDERAL-STATE COST SHARING

Mr. FAZIO. Thank you. Let me ask you a question about the issue of cost sharing obligations. I know in the past we've heard a good deal of concern expressed by the Federal Government about the delay on the state cost share on projects. I'm aware of some projects the State has been out in front of the Federal Government, for example, in the Suisan Marsh area on which it took lead on a number of years ago. But I'm wondering, is there a possibility that we could do some blending of the various programs we're working on with the State to see if we can get an aggregate cost share agreement rather than issue by issue, project by project? Because I think the bottom line is we know that both entities have a responsibility proportionately, but not every project can be as easily helped by the State. Some can be more readily helped by the State. I'm wondering if we could look at some of them in the aggregate and reach agreement.

Ms. BENEKE. Well, I've been advised that under the 1994 cost share agreement that we entered into with the State there is some flexibility on projects in terms of who puts in the funding first and that type of thing. There is flexibility to do some aggregation.

Mr. FAZIO. I don't want it to be used as a method for delaying anything, if you know what I'm saying.

Ms. BENEKE. Right, but I also believe that there are specific projects in the CVPIA where a definite percentage cost share is specified. Those items that are a matter of law, obviously, we would not have the flexibility. Bob Wolf, is there anything else I should add to that response?

Mr. WOLF. In the cost sharing agreement we have gotten ahead of the State on particular projects, and we're providing more than our share. I know there are cases where it is expected that the state will cover more than its share. There is some matching permitted under it. In the end, though, as a matter of law, there are very specific requirements as to the appropriate sharing.

Mr. FAZIO. Well, if you could give——

Mr. MYERS. You are Robert Wolf, is that right? The chief of the Program, Budget and Liaison office?

Mr. WOLF. Yes.

Mr. MYERS. Excuse me, pardon.

Mr. FAZIO. If you could provide the committee, Mr. Schmidt, and myself with the information that we need to know where the distinction has been drawn in law we might be able to help facilitate some greater flexibility here. I'm not interested in changing the total. I'm just interested in making sure we don't lose time while we quibble on one where the State's ahead versus whether the feds are ahead. It seems to be, on occasion, an excuse for not pursuing this as aggressively on all parties' part.

Ms. BENEKE. We should get back to you for the record. I believe the kind of flexibility you're talking about is already being carried out through this cost share agreement but—at the end of the day there is going to be an ultimate percentage amount that is required.

[The information follows:]

COST SHARING IN THE STATE OF CALIFORNIA

The cost share agreement, dated June 27, 1994, signed by the State of California, U.S. Bureau of Reclamation, and U.S. Fish and Wildlife Service states in Article 6—Cost-Sharing Principles that: "By mutual agreement of the parties, one party may fund all, none, or any percentage of the cost of an individual restoration action, as long as the total amount expended by each party equals that party's overall cost allocation under Section 3406 of the Act." The parties believe that cost-sharing needs may be conducted on an overall program basis in lieu of project-by-project basis. The timing of the respective cost shares is an important issue for discussion between the parties.

WESTERN WATER POLICY COMMISSION

Mr. FAZIO. Okay. I wondered if, Secretary Babbitt, you could tell us where you think the Western Water Policy Commission is going? I know they've been meeting and I'm very interested in it. What do you think the Administration's purpose was in agreeing to this and to the appointment of the folks who are serving?

Secretary BABBITT. Mr. Fazio, my purpose in expediting that was in response to Senator Hatfield's unequivocal desire to get this done, and my unequivocal desire to accommodate his needs.

Mr. FAZIO. We understand how that can be.

Secretary BABBITT. Now, I'm hopeful that we can get a good effort out of this. It's a little bit ambiguous because we are in an extraordinarily dynamic time of change, as we've been discussing today. I mean, everything is in motion. You have just taken us through the Central Valley labyrinth. We've talked about the moving pieces on the chessboard of Southern California and in the Lower Basin. In a sense, new patterns are being worked out by groups at tables dickering with each other as they grope their way forward. Exactly the correct function of the Commission at this point is something they're going to have to take, I think, careful appraisal of. The patterns will emerge the new world, is being born right now. You know, the old world is receding and the new one is just kind of emerging. So I think the Commission is going to have a sensitive issue to sort out at the front end—that is how do we help this process even if we're not sure what it really is.

Mr. FAZIO. Do you expect it to get into the issue that you did so much work on as Governor of Arizona, the groundwater issue? Is that one on the agenda? Do you think it will be an effort to develop some additional approaches, for example, to surface water storage or groundwater restoration as a method of providing additional supply? Are these some of the issues that you see a need to reach consensus on? I mean, it's so amorphous and it's such a West-wide thing, you know, I wonder how relevant it's going to be to some of the problems we're struggling with on a local level.

Secretary BABBITT. Patty Beneke is eager to respond.

Ms. BENEKE. Yes, eager to talk about it.

Secretary BABBITT. She volunteered, anyway.

Ms. BENEKE. I did. I had the privilege of attending the first meeting of the Commission in Portland and have had a chance to talk to the Chair of the Commission at some length. One of the areas that the Commission is going to focus on that I am particularly enthusiastic about is taking a look at river basins and watersheds where we have had competing demands for limited resources, where conflicts have come up in terms of water management in the past. The Commission will look at where those conflicts were resolved successfully and where we still have festering problems. It will undertake a case study approach on where we've had successes and where we haven't, and try to give us some guidance why we have accomplished success in some instances and failed to do so to date elsewhere. I think this could be very constructive, and it certainly follows on after the model that we're trying to use in water resources management at the Department, which is to get stakeholders together to try to develop consensus to resolve conflicts. I'm hoping that the Commission can shed some light on why some things work and why some things don't.

Mr. FAZIO. Okay. Mr. Chairman, I'll put the remaining questions in the record because I know I've taken a lot of time.

[The information follows:]

QUESTIONS SUBMITTED BY THE HONORABLE VIC FAZIO

CVP O&M, SAN LUIS UNIT

Mr. Fazio. Commissioner Martinez, the conference report for the FY 1996 appropriations cut Bureau O&M by $15.7 million. The conferees then directed the Bureau, in the conference report, to allocate the reduction in O&M in the following manner:

1) by "ensuring that the most critical maintenance needs are met....", and,

2) by "deriving a significant share of the reduction below the budget request from the various Associated O&M Programs in order to retain as much money as possible for operation and maintenance of projects."

Despite these facts, the Bureau has taken almost half of the Bureau-wide reduction in O&M from one single unit of one single Bureau project. The Bureau has cut over $7 million from the O&M budget for the San Luis Unit, which is 85 percent of the O&M funding requested for this single unit. This seems totally out of line.

Given the House and Senate action and the clear conference report language, the following seems clear:

1) The conferees intended the bulk of the cut in Bureau O&M funds to come from the Associated Programs budget.

2) Any remaining reduction in Bureau O&M would be achieved by reducing the funding of low priority O&M projects across all of the bureau's projects and in all of the Regions.

3) The San Luis Unit would not have to meet any higher standard than any other unit or any other project in order to receive its fair share of the appropriated O&M funds.

Again, it is my firm belief that the conferees were very clear on how this reduction in O&M was to be allocated. Commissioner Martinez, obviously you disagree. Would you please take a few minutes to explain, in detail, how you see things differently so that we can make certain that this kind of misinterpretation does not occur again?

Mr. Martinez. I believe Reclamation adhered to the direction of Congress in allocating the $15 million reduction in the O&M appropriation. In Associated Programs activities, the reduction allocated was $10 million in response to the direction in the House report. The reduction of $7 million in the San Luis Unit was made in response to direction in the Senate report when the Senate specified the amount for the Unit as $1,293,000 instead of the $8,293,000 requested. It is believed that the Senate made this reduction in order to support the addition of $19 million for the Shasta Temperature Control Device, which became necessary when the State of California failed to provide the $20 million in cost sharing for the Temperature Control Device that was assumed to be received when the budget was submitted. Similarly, the Senate directed a reduction of $1,366,000 in Central Valley Project Improvement Act activities.

Later, after Conference action, Reclamation restored $2.7 million to Associated Programs partly in the area of Safety Evaluation of Existing Dams. This critical early detection program is the first step in ensuring the protection of property and persons by ensuring the integrity of Reclamation facilities.

While recognizing the need to reduce the Federal deficit, the delivery of water and power benefits, the protection of the infrastructure, the conservation of natural resources, and the collection of revenues remain Reclamation's principal priorities. Reclamation believes it cannot permit its aging facilities to deteriorate further, but that it must also provide a level of funding for Associated Programs that will enable it to carry out legislative mandates in such areas as safety evaluation of existing dams, environmental protection, and reclamation law administration.

REPLACEMENTS, ADDITIONS, AND EXTRAORDINARY MAINTENANCE ITEMS

Mr. Fazio. Over the last several years, there has been a great deal of concern about the growth in the backlog of replacements, additions, and extraordinary maintenance items related to the Central Valley Project. Last year, the Commissioner testified that the backlog had grown to $81 million from $75 million the previous year. And, in response to this significant backlog, the House and Senate Appropriations Committee, in each of the last two years, directed the Bureau of Reclamation to come up with a plan for reducing the backlog as soon as possible. What is the status of the plan?

Mr. Martinez. A plan is being completed and will be submitted to the House and Senate Appropriations Committee shortly. The submitted plan will provide a description of the Mid Pacific Region's management of the replacements, additions, and extraordinary maintenance, known as RAX items, discusses the appropriateness of the term "backlog" as it pertains to the multiyear scheduled maintenance RAX listing and includes Reclamation's plan for managing the RAX listing and addressing the backlog component.

Mr. Fazio. Over what period of time will the backlog be reduced?

Mr. Martinez. As discussed in the plan, the term "backlog" does not accurately describe the majority of items included on the RAX listing. It is more appropriate to view the RAX listing as a schedule for accomplishment of known RAX items. There are some items on the RAX listing that were not completed as scheduled due to funding limitations or other similar circumstances. Those items are appropriately classified as "backlog" items.

Reclamation routinely reevaluates and updates the RAX listing using a priority system developed to ensure that the most critical items received priority treatment.

Currently, the RAX listing includes items of $65 million scheduled for accomplishment in FY 1996 and future years. Of this amount about $13 million were considered backlog items. None of these items is considered "critical maintenance," i.e., maintenance needed to protect human health or safety or reliability of delivery of water or power. Considering current budget requests for RAX items, this backlog will be eliminated between FY 1997 and 1998.

Maintenance of any facility is an ongoing activity. As Reclamation's infrastructure gets older, additional maintenance items will be scheduled in the outyears. Depending on site conditions and various other factors, the total number of maintenance items will vary from year to year.

Mr. Fazio. Has the Bureau changed the way it measures the backlog in replacements, additions and extraordinary maintenance items?

Mr. Martinez. As discussed in the Mid Pacific Region's plan, a priority system was developed and utilized in reevaluating and updating the replacement, additions, and extraordinary maintenance (RAX) listing to ensure that the most critical items received priority treatment. The RAX listing was developed from data provided by each of the Region's Area Offices and consolidated by the Mid-Pacific Regional Office into a Region-wide RAX listing. It is Reclamation's desire to ensure that the RAX listing is inclusive and provides a complete and viable prioritization of items.

Mr. Fazio. There was discussion last year about reclassifying many of these items. This would effectively reduce the dollar total for the backlog. Was that done, and, if so, what is the current trend of the backlog in these items, using the new definition?

Mr. Martinez. It would be preliminary at this point to predict a trend. Reclamation is using its resources to reduce the replacements, additions, and extraordinary maintenance backlog. As previously mentioned, we are projecting that the current "backlog" will be eliminated between FY 1997 and FY 1998.

Mr. Fazio. Does this change, assuming it was made, apply only to the CVP or to all Bureau projects?

Mr. Martinez. Each region uses its own system to prioritize completion of RAX items. Since the RAX list for the Mid-Pacific Region entailed a large number of items and had other reporting requirements, the Region used a definitive system that would be applied specifically and consistently to facilities administered by the various CVP area offices.

Mr. Fazo. Is there a consistent definition for RAX items that applies to all projects, and, if not, why and how do the definitions differ?

Mr. Martinez. There is a consistent definition applied to all RAX items in Reclamation projects and area offices.

Mr. Fazio. Of the funds appropriated for CVP operations and maintenance on an annual basis, how much has been devoted on an annual basis to begin to reduce the backlog in deferred maintenance (the RAX list)?

Mr. Martinez. The information will be provided for the record.

[Information for the record]

Table below displays the information

FISCAL YEAR	TOTAL CVP O&M	REQUESTED FOR RAX	SPENT ON RAX
1992	$50,860,790	$6,563,000	$4,343,985
1993	62,117,094	2,039,000	6,896,277
1994	64,726,994	4,387,000	2,690,161
1995	66,592,028	2,609,000	1,243,217
1996	64,878,951	4,625,000	5,149,000

Mr. Fazio. In the last two years, funds have been requested by the administration to reduce the backlog in RAX items. But it is my understanding that most, if not all, of these funds have been diverted to cover other funding shortfalls rather than actually being allocated to reduce the backlog in deferred maintenance. How much has the Bureau actually spent to reduce the CVP RAX item list over the last five fiscal years?

Mr. Martinez. Please refer to the table in the previous question.

Mr. Fazio. How much has been requested in the President's budget request over the last five fiscal years?

Mr. Martinez. Please refer to the table in the previous question.

Mr. Fazio. How much should be allocated in each of the next five fiscal years in order to eliminate the backlog in deferred maintenance within the CVP?

Mr. Martinez. The plan addressing the CVP RAX items reflects an intent to allocate $5 to $8 million per fiscal year for CVP RAX items. However, keep in mind that the list is a dynamic process and is reevaluated annually. Over time, new items will be added to the list and others removed.

Mr. Fazio. Please provide, for the record, a list of all RAX items for the CVP and the cost of each item, and put them in an order which reflects, in general, their relative priority.

Mr. Martinez. A list of RAX items is included in the plan to reduce the backlog which will be submitted to the Committee.

TOTAL DOLLAR VALUE FOR DEFERRED MAINTENANCE

Mr. Fazio. What is the total dollar value for all deferred maintenance associated with all of the Bureau's projects, not just the CVP?

Mr. Martinez. We do not have a budget category for deferred maintenance. However, recognizing that maintenance is not an exact science, we estimate that $19 million of maintenance items have been deferred.

LEGAL AUTHORITIES

Mr. Fazio. One solution to the growing backlog in deferred maintenance is for project beneficiaries to self-fund or directly fund the cost of operating and maintaining the CVP facilities. Does the Department of the Interior have all of the necessary authority to allow this to occur without the need for additional statutory directive or authorizing legislation?

Mr. Martinez. The Interior Department Appropriations Act for 1928, dated January 12, 1927, first provided Reclamation with the authority for project beneficiaries to self-fund or directly fund the cost of operating and maintaining CVP facilities. That provision is now codified at 43USC, Section 397a. We believe this authority, plus congressional appropriations, provides sufficient authority. It is contingent, of course, on the project beneficiaries agreeing to advance the funds.

Mr. Fazio. Are there additional statutory directives or authorities that the Congress should consider granting to the Secretary to help encourage the use of a self-fund mechanism among CVP beneficiaries, and if so, please describe them?

Mr. Martinez. Reclamation does not believe there is a need for additional statutory directives or authorities at this time.

CVP OPERATION AND MAINTENANCE FUNDING TRANSFER

Mr. Fazio. Commissioner Martinez, please explain how the transfer of the funding for some of the O&M responsibilities to the three canal authorities (TCC, Friant, and San Luis Delta Mendota) will work and how is this affecting the budget submission for fiscal year 1997?

Mr. Martinez. Discussions are currently being held with the canal conveyance authorities regarding funding responsibilities for the CVP facilities.

The conveyance authorities have been operating and maintaining the conveyance facilities through cooperative agreements with Reclamation with the use of appropriated funds. Reclamation has recovered the conveyance O&M costs through the water rates charged to the water users.

The basic approach being discussed is to transfer the conveyance facilities O&M to the authorities resulting in the water users paying the authorities directly for the conveyance services provided.

The budget request for FY 1997 contains no funds to repay the conveyance authorities for conveyance services. The conveyance authorities would be reimbursed directly by the water users.

Mr. Fazio. What is the total amount of money that you anticipate the canal authorities will collect and spend on O&M in fiscal year 1997?

Mr. Martinez. At this point, we do not know how much the conveyance authorities will collect and spend on O&M in FY 1997. It is expected that the conveyance authorities will spend an amount similar to the amount we originally anticipated spending, about $12.5 million.

Mr. Fazio. Is this amount likely to increase or decrease in the coming fiscal years?

Mr. Martinez. We are unable to speculate on future collections and expenditures on O&M by the canal authorities. Such decisions will rest primarily with the authorities.

Mr. Fazio. What is the total CVP O&M requirement for fiscal year 1997, including the amounts that the canal authorities will collect and spend independent of the Bureau?

Mr. Martinez. As previously mentioned, we are unable to speculate on the amount of conveyance authorities expenditures. Reclamation has requested $65,658,000 for CVP O&M for FY 1997.

Mr. Fazio. How does this compare with fiscal year 1996?

Mr. Martinez. The FY 1996 CVP O&M appropriation is $61,118,000, which includes funds to be transferred to the conveyance canal authorities. The FY 1997 request is for $65,658,000, which excludes the conveyance authorities amounts. We also anticipate significant expenditures by the authorities.

Mr. Fazio. What is the status of these negotiations and what will happen if they cannot be completed by the start of fiscal year 1997?

Mr. Martinez. Both Reclamation and the conveyance contractors consider these negotiations extremely important and are devoting the necessary resources to complete the negotiations by the start of FY 1997. While there are many facets to these negotiations, all indications are that they will be successfully completed in a timely manner.

CVP O&M, AMERICAN RIVER DIVISION

Mr. Fazio. Commissioner Martinez, what are the projected needs for the rehab of Nimbus Fish Hatchery over the next five fiscal years?

Mr. Martinez. Work on phase IV of the Nimbus Fish Hatchery has been initiated this fiscal year. The principal activity will be to install a new pipeline to provide reliable flows. Over the next five years we plan on bringing the hatchery to code on handicap access, lighting, rewiring and insulation. Additionally, we will be paving the parking lot, landscaping and doing additional piping and plumbing work. Pending funding, a major effort will be necessary to rehabilitate the foundation and the fish racks (the screens that are installed across the river to guide the salmon to the fish ladder). The hoisting mechanism for the fish racks needs to be replaced.

Mr. Fazio. Is there concurrence among all of the state and Federal resource agencies as to the needs for Nimbus over this same time period?

Mr. Martinez. We believe there is concurrence among the resource agencies.

Mr. Fazio. Above and beyond the work that is programmed for fiscal year 1997, what additional work does the Bureau have the capability to complete in fiscal year 1997?

Mr. Martinez. Reclamation would have the capability to do the design work on rehabilitating the new fish racks and their foundation.

Additional capability was not included in the President's budget and is not a priority of the Department. The Department does not support the addition of funds for any project which would result in the reduction of funding for other projects included in the budget.

SAFETY OF DAMS

Mr. Fazio. In light of the Spillway Gate No. 3 failure at Folsom, does the Bureau intend to do a comprehensive maintenance and safety of dams review of CVP facilities?

Mr. Martinez. Comprehensive reviews of the CVP facilities and other Reclamation facilities are a routine part of Reclamation's Operations and Maintenance and Safety Evaluation of Existing Dams Programs.

Reclamation utilizes a recurring six-year program to monitor and evaluate the performance of every Reclamation dam that would threaten downstream populations if the dam or features of the dam failed. Each year, over 3 million pieces of instrumentation data are processed and evaluated by trained professionals and often provide the initial indication of developing changes in dam performance. Annual activities include emergency preparedness planning and exercising, and annual inspections. Flood and earthquake events will also trigger special monitoring and inspection activities. Every three years, a more extensive facility review including dam inspection is performed by engineering professionals trained to inspect dams and detect indications of changing or adverse performance. On a six-year cycle, a multi-disciplinary team of professional engineers with specialities in dam design and construction conduct a facility review and inspection of the dams.

Identified concerns are further evaluated using field explorations and engineering analyses as needed in order to confirm, or rule out, deficiency concerns.

In light of the Spillway Gate No. 3 failure at Folsom, Reclamation will provide more focus on integrating the inspection of difficult to access features, such as large radial gates, in the regularly scheduled inspections and reviews. In addition, special examinations and reviews are performed for specific concerns as they are identified. Reclamation has surveyed other facilities which have radial gates. While the multi-agency forensic team has not yet completed its report of the cause of the failure, we have begun to reanalyze those facilities based on the preliminary indication of the potential design deficiencies which resulted in the failure of Folsom Gate No. 3. Reclamation work thus far has focused on the largest gates which would potentially represent the largest threat to the public. At this time we have not identified other structures with deficiencies in the gate designs.

Examination and instrumentation monitoring programs at every Reclamation dam are two of the critical ongoing early detection activities funded under the Safety Evaluation of Existing Dams request. Field exploration and engineering analyses associated with deficiency concerns are also funded under the SEED request. Corrective actions are performed under the authority of the Safety of Dams Act of 1978, as amended in 1984. As a result of Reclamation's Dam Safety Program, corrective actions have been completed or are underway at CVP's O'Neill Dam, B.F. Sisk Dam, and Mormon Island Auxiliary Dam of the Folsom Unit to mitigate dam safety deficiencies. In addition, reservoir operations have been modified at Trinity Dam to reduce the probability of flood overtopping.

CVP OPERATED DAMS - STATE CRITERIA & STANDARDS

Mr.Fazio. How do state safety of dams standards differ from the Bureau's standards? Do all CVP operated dams meet the state's criteria, and, if not, which ones fail to meet the state's standards?

Mr. Martinez. The most appreciable difference in dam safety standards between the State of California and Bureau of Reclamation, based on our understanding, involves the protection of dams during maximum hydrologic events. The State of California requires various levels of flood protection for non-Federal dams depending on the degree of downstream consequences. For high-hazard dams, the Probable Maximum Flood (PMF) is the state design-level flood. State guidelines require that newly constructed high-hazard non-Federal dams must be designed to pass the PMF without overtopping and without using gated spillways. For existing dams with gated spillways, the state may consider permitting a significant portion of the PMF to be passed through the gates.

The Bureau of Reclamation also uses the PMF to evaluate the hydrologic performance of all its significant and high-hazard dams. However, Reclamation's standards allow the use of gated spillways to pass the PMF, and for existing dams which can not pass the PMF without overtopping, our policy is to install effective early warning systems for public safety unless risk-analysis justifies structural modifications. The reason for this policy is that the cost of modifying all Reclamation dams to safety pass PMFs is enormously expensive, hundreds of millions of Federal dollars in California alone, and the probability of an actual PMF occurring is minicule.

The PMF is a hypothetical maximum flood event based on the most severe combination of critical meteorologic and hydrologic conditions in a given drainage area. The National Weather Service calculates PMFs using statistical analysis of past events, and as more and better data has become available, PMF estimates have tended to increase over the years. Consequently, the design of most existing Reclamation dams was based on safely passing floods of less than current PMF magnitude. The probability of PMF-caategory events was estimated by the National Academy of Sciences as minuscule; ranging from one in ten thousand to one in a million chance in any given year.

Most of Reclamation's CVP dams would not meet State of California criteria, if they were subject to them, because they use spillway gates to pass large floods. Because they were constructed many years ago they were not designed to current PMF standards and, except for Shasta Dam, can not safely pass the PMF without overtopping. Earthfill dams such as Trinity, Whiskeytown, Los Banos, Little Panoche, Lewiston, and Folsom would thus likely fail during a PMF, while concrete structures such as Friant and Keswick would not. Reclamation is currently evaluating various structural modifications and early warning systems at those CVP dams that would likely fail should a PMF occur.

CVP O&M, DELTA DIVISION

Mr. Fazio. Commissioner Martinez, how much does the Bureau intend to devote to measures to improve the efficiency and effectiveness of the Tracy Fish Collecting Facility in fiscal year 1996, fiscal year 1997, and the following four fiscal years?

Mr. Martinez. I will be glad to provide a table for the record.

(Information for the record)

Amounts Budgeted for Improvements to the Tracy Fish Collecting Facility

Fiscal Year 1996

Biological Research to Identify and/or Evaluate Improvements	$495,000
Main Transformer Replacement	50,000
Bypass Valves Replacement	73,000
Trash Conveyor Repairs/Replacement	340,000
Collect Tank Screen Frames Repair	100,000
Resurface Interior of Fish Holding tanks	20,000
Install Instrumentation for Efficiency Evaluation	10,000
Total 1996	$1,088,000

Fiscal Year 1997

Biological Research to Identify and/or Evaluate Improvements	$981,156
Power Distribution Equipment Replacement	130,000
Debris Crane	115,000
Secondary Louver Cleaner	140,000
Total 1997	$1,366,156

In FY 1998 through FY 2001, it is estimated that about $1 million would be requested annually for biological research to identify and/or evaluate improvements to the Tracy Fish Collecting Facility undertaken to meet the requirements of the biological opinions under the Endangered Species Act, the Central Valley Project Improvement Act (Public Law 102-575), the Bay-Delta Accord, and the Mitigation Agreement with the California Department of Fish and Game.

Mr. Fazio. Are the fish collecting facilities at risk of complete failure?

Mr. Martinez. The fish collecting facility has been operational for almost 40 years, and recent inspections have shown that some portions of the facility have deteriorated significantly. The most pressing problem is the severe deterioration of the louver guides which have lost at least 50 percent of their strength. The failure of any of the 72 louver guides may result in fish not being diverted from the pumping plant, necessitating a decision to reduce or redirect pumping to the State's Harvey O. Banks Pumping Plant or stop pumping in order to comply with regulatory requirements. Funds for these repairs have not yet been identified.

Mr. Fazio. What would be the impact of such a failure?

Mr. Martinez. As stated above, failure of any of the 72 louver guides may result in fish not being diverted from the pumps and may result in a decision to reduce or stop pumping or redirect pumping to the State's Harvey O. Banks Pumping Plant in order to comply with regulatory requirements.

Mr. Fazio. Is there additional work on these facilities that could be completed, above and beyond the amount requested, in fiscal year 1997.

Mr. Martinez. I will provide the information for the record.

(Information for the record)

Additional work that could be accomplished at the Tracy Fish Collection Facility

Fiscal Year 1997

Louver Guide and Fish Bypass Repair	$1,200,000
Trash Deflector Replacement	250,000
General Equipment Replacement	154,000
Complete Valve Replacement	150,000
Rehabilitate Fish Release Sites	100,000
Air System Upgrade	65,000
Replace Fish Loading Bucket	25,000
Repair Screen Water Divider Plate	10,000
Velocity Control Pump Overhauls	2,500
Wedgewire Screen for Secondary	1,000,000
Total	$2,956,500

This additional capability was not included in the President's budget and is not a priority of the Department. The Department does not support the addition of funds for any project which would result in the reduction of funding for other projects included in the budget.

CVP O&M, FRIANT AND DELTA DIVISION

Mr. Fazio. What types of activities is the Bureau supporting as part of the San Joaquin Valley Endangered Species Recovery Program?

Mr. Martinez. Funds will be used for the following activities: surveying Reclamation lands for the presence of listed species and habitat; identifying potential habitat improvements on Reclamation lands; conducting research on species we must address under the Friant Biological Opinion; addressing obligations to critical needs species; and finalizing the Recovery Plan that will provide guidelines for implementing recovery activities on Reclamation lands.

Mr. Fazio. What is the total dollar amount allocated to such activities in fiscal year 1997?

Mr. Martinez. Reclamation has budgeted $774,000 in FY 1997 for the San Joaquin Valley Endangered Species Recovery Program that will support the Friant Biological Opinion. Funds are included in both the Friant and Delta Divisions. This is a joint agency effort. The Fish and Wildlife Service is providing a coordinator, and additional funds are also being provided by 12 to 15 other entities including Bureau of Land Management, California Department of Transportation, California Fish and Game, Department of Parks and Recreation, the Smithsonian, various counties and others. In addition, funding is available to conduct and facilitate environmental efforts required primarily for critical needs species under the Friant Biological Opinion.

CVP O&M, FRIANT DIVISION

Mr. Fazio. Does the budget request include funding to replace the Friant Dam Drum Gates?

Mr. Martinez. The FY 1997 budget request includes $5 million to replace the Friant Dam drum gates. It is estimated that $2.2 million will be required in fiscal year 1998 to complete the contract.

Mr. Fazio. Will the repairs take more than one season?

Mr. Martinez. Yes. Contract award is scheduled for July 1996 with completion in March 1998.

Mr. Fazio. Will provisions be taken in order to ensure continued deliveries while repairs are underway?

Mr. Martinez. Yes. The contract will contain a provision that all gates be operational from February 1 through July 1 of each year, and that the gates remain operational until such time as the reservoir water surface has fallen below elevation 560 feet which is the elevation of the bottom of the gate.

CVP O&M, SACRAMENTO RIVER DIVISION

Mr. Fazio. Commissioner Martinez, the budget request for the Sacramento River Division includes funds to continue efforts to resolve groundwater problems in the Colusa Basin Drain. Please explain, for the record, these activities and the funding level that will be required to support these activities in fiscal year 1997?

Mr. Martinez. The Colusa Basin Drainage District is developing a program through Integrated Resource Management. The program goals are to preserve and enhance agricultural production; capture surface/stormwater for conservation; provide flood and drainage water protection; assist in groundwater recharge; improve opportunities for restoration of wetland and riparian habitats; and improve water quality.

Phase I, completed in October 1993, outlined the overall initial plan. Phase II, completed in November 1994, was a reconnaissance level study to determine if the goals could be met in a conjunctive use manner and recommend and prioritize areas for potential projects. Phase III, currently in progress, proposes selected sites along with the estimated costs and benefits associated with design and implementation. Phase III is partially complete with the landowner vote passing the Plan and the proposed projects in November 1995. Four projects were selected from the initial Plan including Funks Creek Golden Gate Dam and Reservoir, Wilson Creek Dam and Reservoir, Groundwater Recharge - County Road 27, Glenn County, and the Colusa Basin Drain Management Program.

We are currently working on the preliminary design and feasibility of the four projects. The tasks identified for those projects are land acquisition, site topography, water rights investigation, watershed hydrology, seismic analysis, schematic drawings, engineering reports, preliminary environmental analysis, cost estimate and financing planning, and project administration.

The President's fiscal year 1997 construction budget requests $200,000 for completion of the final environmental review and the final design of the four project sites.

CVP CONSTRUCTION, MISCELLANEOUS PROJECT PROGRAMS

Mr. Fazio. Commissioner Martinez, the five-year budget projection developed earlier this year by the Bureau for CVPIA-related activities, recommended a funding level for Water Conservation of $4 million rather than the $2.65 million reflected in the budget submission. Please explain how the program has changed to accommodate the lower level of spending?

Mr. Martinez. Final "Guidelines for Developing Water Conservation Cost-Share Proposals" were released on November 7, 1995. It was anticipated that Reclamation could fund multiple projects based on proposals submitted by CVP irrigation contractors. This program is completely dependent on proposals which are submitted for funding. This is a voluntary program and not tied to any contract obligations.

The program has not been changed because of reduced funding. Last year, we received no proposals for cost share agreements. However, we do not believe that the lack of proposals was the result of limited funding. Instead, it was more a result of the newness of the program and the limited time available to submit proposals. Reclamation is hopeful that viable proposals will be received.

Mr. Fazio. Which pieces of the earlier planned program have been delayed or moved into out-years?

Mr. Martinez. Projects must be fully implemented by September 30, 1999. No projects have been delayed or moved into the out-years since no proposals have been received for cost share agreements.

ANADROMOUS FISH SCREEN PROGRAM

Mr. Fazio. Commissioner Martinez, the fish screen program funding has dropped in the fiscal year 1997 request by about half in comparison to fiscal year 1996. Please explain why.

Mr. Martinez. As part of the line item, CVP, Miscellaneous Project Programs, the President's budget request includes $5.0 million for the fish screening program in FY 1997. This reflects a slight reduction from the FY 1996 request of $5.75 million. With all of the varied programs included in Reclamation's request we feel the amount being requested will enable us to continue with a meaningful program. This funding is in addition to funds requested in other projects for this work such as $4.3 million for Glenn-Colusa Fish Screens.

Mr. Fazio. How much money did the Bureau carry over into fiscal year 1996 from fiscal year 1995?

Mr. Martinez. The amount carried over for the fish screen program was $1.41 million.

Mr. Fazio. Please provide a list of all of the fish screen projects funded in fiscal year 1995 and the amounts that they have received?

Mr. Martinez. I would be happy to provide that information for the record.

(Information for the record)

CVP FISH SCREENING PROJECTS FUNDED IN FY 1995

Reclamation District 108	$119,683	(model studies)
Maxwell Irrigation District	309,214	(construction)
M&T/Parrott P.P.	30,000	(planning)
Pelger	59,188	(construction)
Banta-Carbona Irrigation District	45,000	(planning)
Suisun Resource Conservation District	534,000	(planning/construction)
Monitoring screen effectiveness (3 sites)	65,000	(evaluation)

Mr. Fazio. Please provide a similar list of projects that have been funded thus far in fiscal year 1996.

Mr. Martinez. For FY 1996, we have entered into an agreement for $2.17 million for a positive barrier screen and pump relocation project at the M&T/Parrott Pumping Plant. In addition several other fish screen projects are in various stages of planning and design with final construction likely in the next two fiscal years.

Mr. Fazio. Please provide a list of all entities currently seeking funds under this program and the dollar amounts that they are seeking or eligible for, if known.

Mr. Martinez. I would be happy to provide that information for the record.

(Information for the record)

CVP, ESTIMATED SCREEN COSTS

Reclamation District 108	$6,800,000	(construction)
Reclamation District 1004	6,000,000	(construction)
Western Canal Water District	8,100,000	(construction)
Gorrill and Adams Diversions	Undetermined	
Banta-Carbona Irrigation District	4,000,000	(construction)
Marchetti Brothers Farming	46,000	(construction)
Natomas Central Water District	100,000	(planning)
Princeton-Cordura-Glenn and Provident Water Districts	6,000,000	(estimated)

The above estimated screen costs reflect the total cost of the screening project of which at least 50 percent would be the responsibility of the diverters.

GLENN-COLUSA IRRIGATION DISTRICT - SACRAMENTO WILDLIFE REFUGE

Mr. Fazio. Commissioner Martinez, the Glenn-Colusa Irrigation District is seeking $2 million in fiscal year 1997 to start work in earnest on the refuge water supply solution for the Sacramento Wildlife Refuges. How would a $2 million earmark for this project affect the balance of the program planned for fiscal year 1997?

Mr. Martinez. It is premature to earmark funding for a specific proposal which has not completed the alternative selection process. Alternative selection is scheduled to occur in late summer 1996. Implementation planning will occur upon completion of the alternative selection process.

Mr. Fazio. How much funding does the Bureau have programmed for the GCID proposal in fiscal year 1997?

Mr. Martinez. In FY 1997, $8 million has been included in the President's budget for implementation of conveyance alternatives under the Refuge Water Supply Program. How that money would be allocated and prioritized to the refuges for implementation of selected alternatives is to be determined. The Sacramento National Wildlife Refuge currently is recognized to have a high priority.

Mr. Fazio. How much funding does the Bureau have programmed in fiscal year 1997 for a solution to the refuge water supply needs of the Sacramento Wildlife Refuges?

Mr. Martinez. Until the selected alternatives process is completed, funding for individual refuges will not be allocated.

CVPIA COST SHARE REQUIREMENTS

Mr. Fazio. Commissioner Martinez, the reliability of the State of California's commitment to meeting its cost share obligations under CVPIA continues to be a concern to you and this Committee. Your budget submission cites S.B. 900 and other efforts to meet these cost share obligations. Overall, however, does the Bureau believe it has the discretion to allow for a melding of projects to permit actual non-Federal cost shares to vary from project to project as long as the total non-Federal cost share, over all of the projects, meets the general non-Federal cost share requirements?

Mr. Martinez. Yes, the Bureau believes that the actual non-Federal cost shares may vary from project to project as long as the total non-Federal cost share, over all of the projects included under Section 3406 of CVPIA, meets the overall non-Federal cost share requirements.

The cost share agreement, dated June 27, 1994, signed by the State of California, U.S. Bureau of Reclamation, and U.S. Fish and Wildlife Service states in Article 6 - Cost-Sharing Principles that: "By mutual agreement of the parties, one party may fund all, none, or any percentage of the cost of an individual restoration action, as long as the total amount expended by each party equals that party's overall cost allocation under Section 3406 of the Act." The parties believe that cost sharing needs may be conducted on an overall program basis in lieu of project-by-project basis. The timing of the respective cost shares is an important issue for discussion between the parties.

AMERICAN RIVER WATER RESOURCES INVESTIGATION

Mr. Fazio. Commissioner Martinez, the Bureau's American River Water Resources Investigation was released in February 1996 and was initiated by Congress in 1991 to investigate methods of meeting water supply needs in northern California. The Bureau successfully narrowed the range of alternatives to conjunctive use and the Auburn Dam to meet the 521,000 acre-feet deficit expected by the year 2030.

In March 1996, the Corps' Supplemental Information Report on the American River Watershed Project was released. The report recommended the Auburn Detention Dam as the NED plan. The California State Department of Water Resources also released in March of this year a "bridging document" to serve as an informational tool to summarize major findings of these two reports and examine their interrelationship. **I WOULD LIKE TO SUBMIT THIS DOCUMENT FOR THE RECORD.**

One of the primary statements of this report is that "alternatives exist in both reports that are compatible . . . and the preferred flood control plan can be implemented without foreclosing on water supply alternatives." The document states "both water supply alternatives offer some level of compatibility with the Detention Dam Plan. The Conjunctive Use plan could be developed with or without the Detention Dam. The Auburn Dam Alternative is compatible with the Detention Dam Plan if the total facility capacity is configured to allow 900,000 acre-feet of flood control space (to maintain the 500-year level of flood protection)."

I understand that the Bureau's report could change over the next few months because you are just entering the public review phase of your programmatic planning report and draft EIR/EIS. Can you provide me with the update on this report?

Mr. Martinez. Five workshops are being held between March 18 and March 28, 1996, allowing the public to gain an understanding of the content of the report. Five public hearings will be held on April 9 through April 17, 1996, in order to gather comments concerning the document. The comments period will close on May 3, 1996. At that time, we will revise the report based upon input received during the comments phase with the final report expected in July 1996.

RED BLUFF DIVERSION DAM

Mr. Fazio. Commissioner Martinez, can you provide me with the status of this project?

Mr. Martinez. The Fish Passage Program at Red Bluff Diversion Dam was initiated to determine a long-term solution for the passage problems of both adult and juvenile Chinook salmon. These problems were substantially mitigated for three of the four salmon runs in 1993 by changes in gate operations; i.e., "gates-out" from September 15 to May 15 and "gates-in" from May 15 to September 15 each year. This operation change still leaves a passage problem during the "gates-in" time period, and a water delivery problem during the "gates-out" time period.

Reclamation plans a six-year interim program designed to keep its commitments to evaluate the research pumping plant facility and other concepts for long-term solutions; protect salmon populations during this interim period; increase certainty for water users and local residents; and allow fishery resource agencies to focus on restoration projects.

Simultaneously, Reclamation will complete the studies and analysis needed to identify a reasonable, cost-effective long-term solution for the fish passage problems at Red Bluff Diversion Dam.

Mr. Fazio. Why is there a reduction relative to fiscal year 1996?

Mr. Martinez. Funding for FY 1996 was anticipated to be provided through State cost share, which did not occur. Therefore, Congress wrote in $1.5 million to fund this program in FY 1996. The requested funding for the FY 1997 program is $2.0 million -- a $500,000 increase.

RD 108 FISH SCREEN ALTERNATIVE

Mr. Fazio. Commissioner Martinez, can you provide me with your views regarding the alternative fish screening program at Reclamation district 108? Personally, I am encouraged with the potential savings that could accrue from the program.

Mr. Martinez. We are currently cooperatively cost sharing the fourth year of experimental fish barrier activities with RD 108 at their Wilkins Slough diversion on the Sacramento River. Early experiments with acoustical technology (sound) have proved inconclusive and the District has elected to limit further experimentation to an electrical barrier. Preliminary efforts conducted last year were hampered by high water flows and the inability to maintain ideal hydraulic conditions across the face of the barrier. We are working with the District and the involved agencies to better test the effectiveness of the electrical barrier this year.

If testing this year does not produce good results, or the effectiveness of the barrier cannot be properly evaluated, we recommend a suspension of the testing at this location until the technology can be better evaluated and refined in a laboratory setting where environmental variables and parameters can be better controlled. Under this scenario we would also recommend that the District proceed with the design and construction of a positive barrier screen to remain in compliance with Biological Opinion requirements. Cost share funds for a positive barrier screen project at this site could be made available through the CVPIA Anadromous Fish Screen Program.

CAPTIVE BROODSTOCK PROGRAM

Mr. Fazio. Commissioner Martinez, we are going into the 6th year for the Captive Broodstock program, and yet this year the Bureau does not recommend the $500,000 needed funding. Can you explain why?

Mr. Martinez. Reclamation staff participates on the Winter-Run Chinook Salmon Captive Broodstock Technical Committee and on the Winter-Run Chinook Salmon Captive Broodstock Budget Committee. The Committee is presently waiting for the release of a draft report, under the direct supervision of the Bodega Marine Laboratory, which will assess progress to date since the Program's inception. The Report has been identified by both Reclamation's and the Department of Water Resources' representatives as essential, inasmuch as it will provide the first clear formal documentation of Program accomplishments. To date, Program progress has been typically reported informally with little written documentation available. The Report should provide information that will enable determination of the status of the Program, including successes, problems, future activities, etc. and will certainly influence future Program direction. Unfortunately, the release of the Report has been delayed from its mid-December 1995 due date. The degree of Program support that Reclamation will provide in the future depends on information presented in the Report.

FOLSOM WATER CONTRACT

Mr. Fazio. Commissioner Martinez, it is my understanding that the Bureau of Reclamation is continuing to insist that the entire City of Folsom must agree to meter all of its residents and commercial and industrial water users in exchange for receiving a contract for CVP water under the terms of language proposed by this Committee in the Fiscal Year 1991 energy and water appropriations bill. This seems extremely onerous, particularly given that the CVP water represents such a small fraction of the community's total water need. In addition, they City has agreed to meter the entire area that would receive this new allocation of CVP water. Would you please update the Committee on the status of your review on this issue and give us some ideas as to when you see this issue being resolved?

Mr. Martinez. Reclamation is currently negotiating a new municipal and industrial water service contract with the Sacramento County Water Agency. The City of Folsom (City) will be a sub-contractor under that water service contract. The City currently provides water service to its residential users from non-CVP sources, its own surface water rights.

Under this sub-contract, the City will take both its water rights water and CVP water through a common pipeline and treat the commingled water in its existing water treatment plant before distributing the water throughout the City.

The City argues that they should be required to install measuring devices only in the area they contractually define as its service area. Reclamation does not believe that comports with Section 3405(b) of Title XXXIV of the Central Valley Project Improvement Act which requires that all surface water delivery systems within its boundaries be equipped with water measuring devices or water measuring methods.

The measurement of its water deliveries will result in the better management of California's precious water resources. Effective water conservation will result in better utilization of the City's water rights water, thereby reducing the City's need for Project water.

Negotiations are continuing with the Sacramento County Water Agency on the terms of the contract. We are hopeful that these negotiations will be concluded in the near future.

WESTERN WATER POLICY REVIEW COMMISSION

Mr. Fazio. Secretary Babbitt, I am interested in the progress being made by the Western Water Policy Review Commission. I understand that their report is due out in two years. Can you provide me with an update?

Mr. Babbitt. The Commission was chartered in September 1995. Its first meeting was held February 16 and 17, 1996, in Portland, where it received testimony from Assistant

Secretary Beneke, Senator Hatfield, and a dozen other leading spokespersons in western water, including Native Americans, traditional water users, research organizations, environmental groups, and the States. The Commission is currently holding nine scoping workshops throughout the West to obtain local input to its work plan, which will be adopted at the Commission's next meeting in May. The Commission expects to have its report completed by October 1997.

1996 CVP WATER ALLOCATION

Mr. Fazio. Secretary Babbitt, the President's budget proposal requests $8 million for implementation of the Anadromous Fish Restoration Program mandated by the CVPIA.

We have heard from CVP customers who are angry that the Fish and Wildlife Service is taking 130,000 acre-feet from farmers to implement part of the plan, despite the fact that it is still in draft form.

A more serious concern is that water users believe they have a firm commitment from the Department to consult with the stakeholders before implementing the plan. Yet here we have the Fish and Wildlife Service apparently going off on its own without consulting anybody.

This controversy is undermining confidence in your efforts to work out administrative solutions to the some of the California's water problems. I hope you will be able to get on top of this quickly.

I have received a letter from the San Luis Water Authority outlining their concerns about this issue. I want to enter it into the record and ask you to respond to it as soon as possible.

(Information for the record)

SAN LUIS & DELTA-MENDOTA WATER AUTHORITY

March 15, 1996

Honorable Vic Fazio
U. S. House of Representatives
Washington, D.C. 20515

Dear Congressman Fazio:

I am writing to appraise you of a recent development that has raised significant concerns regarding both the implementation of the Central Valley Project Improvement Act, (CVPIA; P.L. 102-575, title 34) and the Department of the Interior's "Garamendi" Process of seeking administrative solutions to CVPIA issues.

The Interior Department today announced water allocations for the Central Valley Project that violate the Bay-Delta Accord by withholding 130,000 acre-feet of water more than is required by the Accord.

Further, the U.S. Fish and Wildlife Service is taking the 130,000 acre-feet from water users South of the Delta to unilaterally implement items from the draft CVPIA anadromous fish doubling plan despite the Department's promise that the Plan would be implemented cooperatively with stakeholders.

As a result, water users south of the Delta will see their allocations reduced further during one of the wettest years on record, while all other environmental, urban and agricultural uses in the CVP system will receive a full supply.

As you know, since passage of the CVPIA in October 1992, Central Valley Project customers have struggled mightily with agencies of the Department of the Interior to appropriately and responsibly implement that law.

The December 1994 Bay-Delta Accord made great strides towards achieving greater water supply certainty and reliability for both environmental and human needs. Further, the introduction of legislation (HR1906/2738) spurred Interior agencies towards supportable and reasonable execution of CVPIA provisions and away from a "heavy-handed" and unilateral approach to implementation of the law.

However, today's CVP water allocation demonstrates clearly that the "administrative solutions" sought by Deputy Secretary John Garamendi's CVPIA Forum will be worthless so long as USFWS field staff can re-interpret and implement the law as they wish.

More important for California as a whole, the Department's action today threatens the letter and intent of the Bay-Delta Accord.

Obligation of CVP resources above and beyond those called for in the Bay/Delta Accord through a highly contestable and unsupported allocation of the CVPIA environmental water severely harms both the credibility of Interior's commitment to the principals of the Accord and demonstrates a clear failure of the "Garamendi" Process.

The troubling issues and actions on the part of the Department of the Interior outlined here are the very reason and basis for which we have and will continue to strongly support fixes to the CVPIA. Without significant change in Interior's method and manner of implementing the CVPIA, there is no doubt that these destructive conflicts will continue.

Sincerely,

Daniel G. Nelson
Executive Director

DGN/slm

Encl.

Summary of Fundamental Concerns

The CVP water allocation announced today by the Department of the Interior is flawed for two reasons:

1) It violates Interior's pledge to seek cooperative implementation of the CVPIA.

The Fish and Wildlife Service is demanding the additional water to unilaterally implement items from the draft fish doubling program required by CVPIA despite the Department's explicit promise that the program would be implemented only with stakeholder input, review and cooperation.

2) It is a violation of the 1994 Bay-Delta Accord.

The Bay-Delta Accord is intended to provide certainty for water users by setting the maximum amount of water that they have to give up to meet water quality and quantity obligations in the Delta. Yet today's water allocation takes 130,000 acre-feet MORE from water users than is required by the Bay-Delta Accord.

A fundamental principal of the Accord is that any additional environmental water needs will be met under a "no net loss" requirement.

This latest reallocation of water from human uses to the environment comes during an very wet year when natural flows through the Delta already exceeds levels required by the Bay-Delta Accord.

Interior's unilateral re-allocation of CVP water beyond Bay-Delta and CVPIA requirements:

1) Puts at risk the Bay/Delta Accord and the CALFED process.

2) Undermines confidence in, and heightens concerns that, the "Garamendi Process" is more process than substance and that claims of "progress" are overly optimistic.

3) Demonstrates yet again that the Interior Department is run from the bottom up, with Fish and Wildlife Service field staff empowered to override agreements and decisions made by political appointees and policy level managers.

4) Underscores the need for Congress to clarify the CVPIA to provide for greater stakeholder input and certainty in the operation of the CVP.

CENTRAL VALLEY PROJECT WATER ASSOCIATION

March 15, 1996

FAX MEMO

Mr. John Garamendi
Deputy Secretary
Department of the Interior
1849 C Street NW
Washington, DC 20240

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Dear Deputy Secretary Garamendi:

We are extremely disappointed with the manner in which Interior agencies have unilateral implemented CVPIA actions in the context of the 1996 CVP water supply allocation.

We understand that the Fish and Wildlife Service has requested, and the Bureau of Reclamation has agreed, to further reduce Delta exports beyond the targets previously agreed to in the December 1994 Delta Accord. The Service plan was the subject of a meeting 12 days ago when it was then "preliminary". Now it is "final" despite our strenuous policy objections and without the resolution of numerous complex operational uncertainties.

This action will have an adverse impact on Project deliveries to agricultural contractors in the Delta export service area, which is of great concern. Of almost greater concern is how this decision was made.

We cannot comprehend the contradiction between the messages you have sent for the last six months in the "CVPIA Implementation Forum" process and what is now occurring at Interior. We have heard about working together, communication, reasonableness and balance, but today we see the unilateral implementation of a change in operations, the only basis of which is that it is contained in the Draft Anadromous Fisheries Restoration Plan (AFRP).

We have been comfortable with the AFRP because of repeated assertions that the determination of merit and reasonableness would be made in an elaborate stakeholder-involved implementation process. That, quite clearly, has not happened now and we must be cautious as to how we accept Interior assurances in the future.

This action also draws into question commitments Interior made when it endorsed the 1994 Delta Accord, and joined in the CALFED process which has at its foundation the coordination of the many environmental laws and obligations to provide the water projects with operational certainty.

Attached is a letter we sent to the Fish and Wildlife Service nine days ago detailing our concerns. We have had numerous discussions with responsible Interior officials over the past week. While it has been acknowledged that we have strong and legitimate claims as to problems with the process underway and the policy principles we are arguing, little substantive progress is apparent.

We will look forward to focusing on these concerns and some lessons we are learning at your next Forum meeting in Sacramento.

Thank you for your consideration,

Jason Peltier
Manager

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1521 I Street, Sacramento, California 95814
Telephone: (916) 448-1638 • FAX: (916) 446-1063

[illegible] VALLEY PROJECT WATER ASSOCIA

March 7, 1996

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Mr. Marty Kjelson
Program Manager, AFRP
U.S. Fish and Wildlife Service
4001 N. Wilson Way
Stockton, CA 95205-2486

Dear Marty:

We are alarmed that the Interior Department appears to be unilaterally implementing actions from the Draft AFRP in the context of making 1996 water allocation decisions. We discussed this concern in Fairfield on Monday but recent developments have heightened our concerns and have, unfortunately, further set the stage for conflict.

We have been generally supportive of the Draft AFRP in large measure because of the repeated assurances from the Service that the plan amounted to no more than a "menu" of possible actions. Of critical importance is that we have been led to believe that the essential analysis and discussions of specific biological benefits, biological monitoring, operational impacts, relationship with the 800,000 acre feet and other CVPIA environmental restoration tools, NEPA compliance, ESA consultation and coordination with the CALFED operations committee will all occur within some formalized, stakeholder-involved, implementation process. As a result of these latest developments, we urge you to fully define the "implemention process" in the final AFRP.

It was indeed the assurances that a detailed analysis of any implementation decisions would occur prior to implementation that kept us from challenging the many possible AFRP actions as inadequately defined and not supported by sound science and understanding.

Many AFRP actions seem to have little more than a "best guess" or "gut feel" foundation, which is a wholly inadequate basis for decision making. I was somewhat relieved by your statement that the AFRP items were not being implemented this year, but that you had simply given them to the Bureau and DWR to see if they could be accommodated within planned operations at no additional water cost.

We are now alarmed, however, that Bureau operations staff indicate they are reworking the current forecast to accommodate "changes in operations requested by the Fish and Wildlife Service" related to minimum river flows and Delta operations. I hope this is just a miscommunication between yourself and the Bureau.

If not, the future of the AFRP will be in deep question. If in fact unilateral implementation is now being undertaken, we would have to strongly oppose the Draft AFRP in its current form and request that the specific analysis identified in the second paragraph of this letter be undertaken prior to finalization of the report.

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1521 I Street, Sacramento, California 95814
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We would also urge your agency to be fully responsive to President Clinton's Executive Order #12866 whi requires extensive benefit and impact analysis before actions implementing federal statutes are undertak

Not only does the credibility of the AFRP rest almost entirely on the foundation of an open and fully inform implementation process, its relation to and conformance with the letter and intent of the Bay/Delta Acco of December 1994 also relies on that same foundation.

The December 15th Accord was borne largely out of our collective frustration with unclear "rules of the roa for operating the CVP and SWP. The Accord was celebrated because of the certainty that it brought to wate project operations. Quite clearly, the unilateral implementation of AFRP "ideas" will make a mockery of the federal government's commitments to the principles of certainty and an open, collaberative process behin the Bay/Delta Accord.

I hope I am not overreacting, but things do seem to be quite out of control. This situation is made all the more important by the fact that despite the best storage and precipitation conditions in the last decade, over 1 million acres of the CVP service areas now have only a 60% supply.

That's almost a 50% cutback when farmers are out planting their crops for the 1996 harvest. Many are planting in the dark; without assured water supplies. I guarantee that farmers are not planning to idle 40% of their ground. They are assuming higher supplies, and it appears taking a major risk, with the assumption that the Accord was and is the controlling factor.

Marty, we can talk through these concerns at your briefing and the Bureau's subsequent operations workshop on the 11th of March, but I feel the need to supplement our previous comments in light of what appears to be a major development.

Sincerely,

Jason

Jason Peltier
Manager

cc:
Roger Patterson
Dale Hall
Laura King
Patrick Wright
Dave Kennedy
Bob Potter
Greg Gartrell
Steve Macaulay
Steve Arakawa
Tom Berliner
Rich Golb
CVPWA Board of Directors

GARAMENDI PROCESS

Secretary Babbitt, over the past six months, Deputy Secretary GARAMENDI has led an unprecedented effort to get CVP water users, urban areas, and the environmental community to work out their problems with the implementation of the CVPIA. He is to be commended for all his hard work.

The Garamendi process comes to an end this wek, and all parties involved are looking for concrete results. Hard decisions need to be made and they expect you to make them.

It's time to deliver.

But many of those involved in this debate in California don't have a lot of confidence in the Department's ability to actually make the decisions that need to be made regarding the CVPIA.

For example, in December the Department released a draft policy regarding treatment of water rights settlement contracts in the Sacramento Valley. Almost four months later, no decision has been made. Lots of talk and lots of paper and lots of process, but no concrete result.

I hope that's not an indication of how the six-month-long Garamendi process is going to end up. Lots of talk, no results. If the Department wants to maintain any credibility in California, it will have to do much better than that.

RESTORATION FUND

Mr. Fazio. Secretary Babbitt, since passage of the CVPIA in October, 1992, CVP water and powers users have paid $63.3 million into the Restoration Fund. Not including FY 1996, the Department has spent a total of $37.5 million from the Restoration Fund on environmental restoration in the Central Valley.

In FY 1996, the Department will have approximately $50 million in Restoration Fund monies plus another $45 million in regular appropriations to carry out the environmental mandates of the CVPIA. What has the Department accomplished with all this money? Specifically, how has the Department used the Restoration Fund to make the environment in the Central Valley of California measurably better in March, 1996 than it was in October 1992?

Mr. Babbitt. I understand that in addition to the development of programs and the studies required by the Act, there has been and continues to be major progress in making improvements to the environment of the Central Valley. These include:

The construction of a temperature control device at Shasta Dam.

Approximately 435,000 acre-feet of Level 2 water supplies have been provided through conveyance and pumping to Central Valley refuges and wildlife management areas.

Approximately 20,000 acre-feet per year of Level 4 water supplies have been acquired and conveyed to Central Valley refuges.

Supplemental water supplies acquired for fishery purposes include 30,000 acre-feet in FY 1995, 15,000 acre-feet in FY 1994, and over 35,000 acre-feet in FY 1996.

Mr. Fazio. What percentage of Restoration Fund expenditures to date have been used for "on-the-ground" environmental improvements and habitat restoration, and what percentage has been used for studies, surveys, planning and administration?

Mr. Babbitt. I understand that it can be difficult to distinquish between funds used for "on the ground" improvements and funds used for studies, surveys, planning, and administration. The costs of "on the ground" improvements can include acquisition, engineering and design (as opposed to studies), and compliance requirements (NEPA, CEQA, permits, etc.). Our estimate for FY 1996 is that, of the Restoration Funds not specifically targeted for CVPIA non-habitat actions such as studies and monitoring, approximately 80 percent will go to "on the ground" implementation. The other 20 percent will go for planning and administrative costs. The percentage going to "on the ground" efforts in previous years was undoubtedly lower, as such efforts were being indentified and planned.

BAY-DELTA ACCORD

Secretary Babbitt, in December 1994, you joined other agencies of the Federal Government, the State of California, and representatives from interested urban, agricultural and environmental organizations in signing the historic agreement on protecting the Bay-Delta Estuary.

As part of that agreement, the Federal Government committed, in my understanding, to a role in the implementation and financing of Category III, non-flow related environmental protection measures. The total cost of these Category III measures is estimated to be $60 million over the next three years. California's urban water users, led by the Metropolitan Water District of Southern California, contributed $10 million to this effort in February 1995, and is expected to contribute another $10 million in each of the next two years.

Mr. Fazio. How is the Department of Interior addressing its commitment to financing a portion of the Bay-Delta Category III measures?

Mr. Babbitt. I am aware that the Department of the Interior is taking several steps to address its commitment to financing a portion of the Category III measures. These include developing a guidance document to facilitate coordination between the ecosystem health component of the CALFED Bay-Delta program (long-term objective) and the near-term objective of the Category III program, identifying a wide variety of ongoing efforts which match the Bay-Delta program's long-term objectives and Category III near-term objectives. These include efforts associated with the Central Valley Project Improvement Act as well as existing Bureau of Reclamation projects, and identifying opportunities to reprioritize existing funding sources to cost share or finance efforts which match the goals of the Bay-Delta Program and Category III. These include sources such as the Commercial Salmon Stamp, CVP Restoration Fund, Four Pumps Agreement, and Tracy Fish Agreement.

Mr. Fazio. Are there specific projects in the Department's budget that are aimed at responding to the Federal commitment to protect the Bay-Delta Estuary?

Mr. Babbitt. It is my belief there are a variety of efforts included in the Department's budget which are aimed at responding to the Federal commitment to protect the Bay-Delta estuary. Some of these include the Shasta temperature control device, Interagency Ecological Program, spawning gravel restoration, water acquisition, demonstration research evaluation of Red Bluff pumping facility, Hamilton City Pumping Plant and Fish Facility and refuge water supply.

ENVIRONMENTAL IMPACT STATEMENT ON ACREAGE LIMITATION AND WATER CONSERVATION RULES

Mr. Fazio. The revised Reclamation Reform act rules and regulations were due to be issued this month. I want to urge you to adopt the Preferred Alternative in the Final Environmental Impact Statement on Acreage Limitation and Water Conservation Rules as soon as possible. Can you provide me with an update on this issue? When are the final rules due to be issued? What has caused the delay?

Mr. Babbitt. Notice of the availability of a final Environmental Impact Statement for Reclamation's acreage limitation and water conservation proposed rulemaking under the Reclamation Reform Act of 1982 was published in the Federal Register in February 1996. The release of the final EIS follows a period of extended public comment on last spring's proposed rules and draft EIS, during which Reclamation received nearly 400 letters and held 8 public hearings on these complex issues. The final EIS Preferred Alternative was prepared to respond to many of the concerns that were raised.

The Department is proceeding to prepare and adopt a Record of Decision on the EIS. By Council of Environmental Quality regulation, a Federal agency must wait at least 30 days following the publication of a final EIS before issuing a Record of Decision, but preparation of a Record of Decision may take longer. Other Federal agencies have the opportunity to comment on a final EIS.

CITY OF FOLSOM WATER METERING

Mr. FAZIO. But I have one more that I wanted to ask, and perhaps Commissioner Martinez can help, but if not I'm just calling it to his attention. A number of years ago we were able to get some additional water allocated to some of the communities north of Sacramento. One of them is the City of Folsom, which used to be in my district, now it is in Mr. Dooley's, who is a significant member for the Department and the Bureau. The city has been told that in order to take what will be a relatively small share of their total water supply, they're going to have to meter every home in the city. And what I'm suggesting is that they're available to meter all the homes that are going to benefit from this allocation of CVP water, but they don't want to go to the expense of going through the entire community and retrofitting meters in an area that's had such abundant water supply through the years that it hadn't gone to that expense. Is there any reason why we couldn't simply hold them to the requirement of metering in the area that would be served by this contract versus requiring them to put out an inordinate amount of money beyond this relatively small margin that's going to augment their supply? That's what they're being told they are going to have to do.

Mr. MARTINEZ. Mr. Fazio, I met with the representatives of the City of Folsom. They raised this issue. I told the regional director—work that out. I share your concerns. I don't know specifically what the law says but it does not appear to me to make much sense to require metering of the entire entity.

Mr. FAZIO. I think sometimes when people are directed to do things by Congress they resent it so much they figure out ways to make it difficult to do. Does that ring a bell with you?

Mr. MARTINEZ. We're looking at the question.

Mr. FAZIO. I've had experience over the years and sometimes it's not at your level; another level perhaps closer to where the actual implementation is required, and we understand that human reaction. But Congress usually has a human reaction in response, which sometimes gets you caught in the cross hairs, and we apologize, but——

Mr. MARTINEZ. Well, we're working on that issue.

DAM SAFETY ISSUES

Mr. FAZIO. I appreciate that. I hope the dam safety issue at Folsom is being addressed as well, and I'm just wondering if perhaps anybody can comment on where we're going with the dam safety problems that we face. Certainly, it could play a significant role in the context of the debate over Auburn Dam in our region.

Mr. MARTINEZ. It's my understanding that the work will be completed hopefully by next spring. About $31 million will be expended on that project. It's turned out that it's primarily a design deficiency. A report is being prepared that will be available. And we're going to make sure that we don't have any similar problems with those types of dams in the west or similar problems with those types of gates in Folsom.

Mr. FAZIO. Would that dam safety repair perhaps involve making more flexible use of the dam in the sense of perhaps being able to manage it with more flexibility for water supply and flood protection at the same time? Is that being considered as part of the approach to fixing the dam after it was broken?

Mr. MARTINEZ. Not directly.

Mr. FAZIO. If however that was decided, would we be able to integrate these projects? Because ultimately you wouldn't want to have done one and then go back and address another. Isn't that correct?

Mr. MARTINEZ. If you're looking at maybe increasing the capacity of the reservoir with a time schedule or looking at fixing the gates, I don't think you could probably combine both of those.

Mr. FAZIO. Okay. Mr. Chairman, I have one other. I apologize for being overly optimistic about stopping. But if you want me to I will. Knowing I need you for everything I want.

Mr. MYERS. Go ahead.

AMERICAN RIVER WATER RESOURCES INVESTIGATIONS

Mr. FAZIO. One more question and that relates to the American River water resources investigation, which was a project the Bureau conducted at the request of our regional delegation. And I know there's been an effort by the State Department of Water Resources to integrate this with the Corp's project, its analysis of what should be done for flood protection in the area. I'm wondering if, if there's any way you could comment on the—I have a document I'd like to submit in that regard by the way for the record.

[The information follows:]

Summary Paper for

American River Watershed Project
and
American River Water Resources Investigation

March 1996

Prepared by the State of California Department of Water Resources

Pete Wilson
Governor
State of California

Douglas P. Wheeler
Secretary for Resources
The Resources Agency

David N. Kennedy
Director
Department of Water Resources

This report does:

- Serve as an informational tool to summarize major findings contained in the Corps of Engineers' American River Watershed Project Supplemental Information Report and the Bureau of Reclamation's American River Water Resources Investigation.
- Describe the interrelationship of the preferred flood control plan and the water supply alternatives as set forth in the two reports.
- Discuss the timeline to complete and implement the results of each study.
- Provide a brief overview of local water supply planning efforts being conducted in parallel with the Bureau's investigation.

This report does not:

- Substitute for, or supplement either of the two reports.
- Propose any additional alternatives.
- Formulate a "combined alternative" that addresses both flood control and water supply.
- Describe a plan that provides new water supplies outside the Bureau's five–county study area.
- Attempt to address Bay–Delta water issues.
- Serve as an environmental document subject to CEQA and NEPA.

Foreword

This Summary Paper has been prepared by the California Department of Water Resources to assist in understanding the relationship between two federal reports on American River basin water issues:

- U.S. Army Corps of Engineers' March 1996 *Supplemental Information Report and Final Supplemental EIS/EIR, American River Watershed Project, California* (a supplement to the Corps' December 1991 Feasibility Report).
- U.S. Bureau of Reclamation's January 1996 *American River Water Resources Investigation Planning Report and Draft EIR/EIS.*

The fundamental conclusion of the Summary Paper is that there is nothing in the flood control plan that is being proposed for authorization in the Water Resources Development Act of 1996 that would compromise water supply alternatives set forth in the Bureau's report, or that are being discussed in other concurrent planning processes.

The Summary Paper is being released at this time because a strong need for this "informational tool" has been expressed by Washington–level reviewers in both Congress and the Administration for use during the Congressional review process leading to action on WRDA 1996. Initial House Subcommittee meetings were held on February 27 and 28; more hearings are scheduled during March, and bill markups are expected to occur during April and May.

Drafts of the Summary Paper have been reviewed by the federal lead agencies and by the nonfederal cost sharing partners of both studies. In addition, staff of the four local area Congressional representatives have participated in the review process. Comments of all reviewers have been incorporated into the text.

It is important to note that some of the alternatives described in the Bureau's report could change over the next few months because they are just entering the public review phase of their programmatic planning report and draft EIR/EIS. Five public workshops are scheduled during March, and five public hearings are scheduled during April. If, upon completion of the public review process for the Bureau's report, a need is expressed for an updated version of the Summary Paper, the Department will be pleased to prepare one.

If there are any questions concerning this Summary Paper, please contact:
George Qualley, Department of Water Resources at (916) 574–2783.

David N. Kennedy
Director

Introduction

California seldom seems to hit it "just right" when it comes to water; its residents regularly must deal with either too much (flooding) or too little (drought). In the American River basin, flood control and water supply, along with environmental concerns related to both, long have been the subjects of debate and study. During 1996, federal, State and local decision makers will be asked to consider recommendations set forth in two federal studies which focus on the American River basin: one addresses the need for increased flood protection and the other addresses water supply needs. These reports are, respectively,

- U.S. Army Corps of Engineers' March 1996 *Supplemental Information Report* (SIR) *and Final Supplemental EIS/EIR, American River Watershed Project, California*—a supplement to the Corps' December 1991 Feasibility Report.
- U.S. Bureau of Reclamation's January 1996 *American River Water Resources Investigation Planning Report and Draft EIR/EIS* (ARWRI).

Purpose of Summary Paper. In late 1994, as both the Corps' and Bureau's studies were nearing completion, all parties agreed that a "bridging document" would help orient decision makers to the findings and recommendations brought out in the respective reports. This Summary Paper is not intended to substitute for the two federal reports; decision makers must use the information in those reports for their final decisions.

This paper does not and is not intended to serve as a supplement to either the Corps' March 1996 Supplemental Information Report and Final Supplemental EIS/EIR or the Bureau's January 1996 Draft EIR/EIS. It is also not intended in any way to propose additional alternatives to those presented in either the Corps' or Bureau's reports, nor is it an environmental document pursuant to NEPA or CEQA.

This paper summarizes the results of the Corps' and Bureau's reports; describes the interrelationship between the Corps' recommended flood control plan and the Bureau's proposed water supply alternatives; and discusses the processes and timelines of the respective reports. A fourth element, an overview of local water supply planning efforts, is at the end of this paper. Although these efforts are not "bridged" with the two federal reports, readers can avail themselves of local insights to American River basin water supply issues by reviewing the *Other Water Supply Programs* section at the end of this report.

The California Department of Water Resources prepared the Summary Paper as the State's principle water resources planning agency, with a balanced interest in both public safety and water resources development issues. A draft Summary Paper was not circulated until each of the studies had been released to the public. Review comments by the respective study sponsors were incorporated into the paper.

Executive Summary

The Corps and Bureau investigated flood control needs on the American River and existing and future water supply needs in Sutter, Placer, El Dorado, Sacramento, and San Joaquin Counties, respectively, and analyzed alternatives to meet those needs. Alternatives exist in both reports that are compatible. There is an immediate, critical need for flood control and the preferred flood control alternative—the 500–year Detention Dam Plan—can be implemented without foreclosing on water supply alternatives presented in the Bureau's report.

Alternatives exist in both reports that are compatible . . . and the preferred flood control plan can be implemented without foreclosing on water supply alternatives.

Flood control. The Corps assessed the flood risk in Sacramento through an ongoing study process which began after the February 1986 flood. Shortly after the flood, Congressmen Vic Fazio and Robert Matsui held hearings to help solve the Sacramento area's critical flood problem.

Over $25 million has been spent on the long–term planning efforts which are cost shared by federal, State, and local governments. The Corps looked at many alternatives, studied 17 different combinations of flood control measures, then narrowed those down to three, which were then studied in depth. The three alternatives are the Folsom Stepped Release Plan, the Folsom Modification Plan, and the Detention Dam Plan (flood control dam near Auburn). The Corps completed a Chief of Engineers' report in 1992 which is supplemented by the March 1996 SIR. The Detention Dam Plan was determined by the Corps to be the National Economic Development plan. The NED plan is the plan that has the highest level of net benefits.

On October 12, 1995, the California State Reclamation Board voted for a preferred plan from among the three final alternatives. The Reclamation Board endorsed the Detention Dam Plan which will provide a 500–year level of flood protection (1 in 500 in any given year). On November 9, 1995, the Sacramento Area Flood Control Agency also voted for the Detention Dam Plan as their locally preferred plan.

The Chief of Engineers released his proposed report on March 1, 1996, which supplements the report of June 29, 1992. The proposed Chief's Report confirms that the Detention Dam Plan is the National Economic Development plan, but acknowledges uncertainties associated with a pending cost–sharing policy proposed by the Administration.

The proposed Corps' Chief's Report urges the nonfederal sponsors to proceed with certain minor improvements, with the assurance that the work will be eligible for federal credit. The report notes that "upon further clarification of the cost sharing policy and better understanding of the availability of federal resources," the Chief of Engineers "will make further recommendations concerning implementation of a more comprehensive plan for the American River which would provide a substantially higher degree of flood hazard reduction."

In March 1996, the Corps' SIR (accompanied by the proposed Chief's Report) entered the Washington, D.C.–level review phase, which should be completed by June 30, 1996. This 90–day review period provides an opportunity for the non-federal sponsors to provide additional information to the Administration regarding the significant federal interest (both economic and public safety) associated with implementing the NED (500–year Detention Dam) plan.

Initial hearings on the Water Resources Development Act of 1996 were held by the House Subcommittee on Water Resources and Environment on February 27 and 28, 1996. Draft authorizing legislation is being prepared, and is expected to be introduced to the Subcommittee during March. Final bill markup by the committees is expected to take place during April and May.

Water supply. The Bureau's public review draft ARWRI report was released in February 1996. The study was initiated by Congress in 1991 to investigate methods of meeting water supply needs in an area that includes portions of Sutter, Placer, El Dorado, Sacramento, and San Joaquin Counties. This report also serves as a draft planning report and a draft programmatic EIR/EIS; additional environmental documentation will be required before project components can be implemented or constructed. This study is being cost–shared evenly by the Bureau and local cost sharing partners. The Bureau has successfully narrowed the range of alternatives in agreement with the local cost–sharing partners.

The projected water supply deficit for the five–county study area is 521,000 acre–feet by the year 2030. The Bureau's draft report concludes that there are two alternatives to meet that need. The proposed alternatives are the Conjunctive Use Alternative and the Auburn Dam Alternative; both alternatives include conservation and reclamation components.

Both water supply alternatives offer some level of compatibility with the Detention Dam Plan. The Conjunctive Use Alternative could be developed with or without the Detention Dam. The Auburn Dam Alternative is compatible with the Detention Dam Plan if the total facility capacity is configured to allow 900,000 acre–feet of flood control space (to maintain the 500–year level of flood protection).

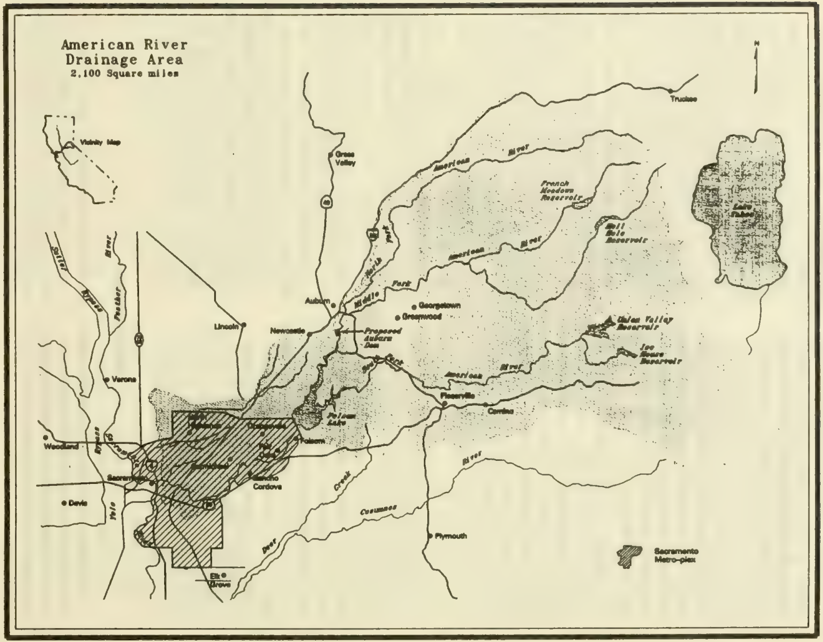
The proposed flood control detention dam could be expanded at a later time to provide for water supply or additional flood protection.

More detail about how various components of the Corps' and Bureau's studies interrelate from a technical standpoint are found later in this summary. The most important relationship, however, is the window of compatibility that exists between the preferred alternative for flood control and the two water supply alternatives. The differences that exist in the schedules do not interfere with selecting and implementing the preferred alternatives.

Background

The American River basin drains about 2,100 square miles on the western slope of the Sierra Nevada in Northern California (see Figure 1). In the Sacramento area at the confluence of the Sacramento and American Rivers, the American River forms a floodplain roughly covering 110,000 acres. The floodplain includes most of the City of Sacramento and the Natomas basin. Folsom Dam and Reservoir, about 29 miles

Figure 1


American River
Drainage Area
2,100 Square miles
Vicinity Map
Truckee
Grass Valley
Lake Tahoe
French Meadows Reservoir
Hell Hole Reservoir
Union Valley Reservoir
Ice House Reservoir
American River
North Fork
Middle Fork
South Fork
Auburn
Georgetown
Greenwood
Proposed Auburn Dam
Newcastle
Lincoln
Folsom Lake
Folsom
Placerville
Camino
Rancho Cordova
Sacramento
Woodland
Davis
Verona
Sutter Bypass
Feather River
Yolo Bypass
Sacramento River
Deer Creek
Cosumnes River
Plymouth
Elk Grove
Sacramento Metro-plex

east of downtown Sacramento, was constructed in the 1950s as a multipurpose reservoir to provide flood protection and recreation for the Sacramento area as well as water and power for the Central Valley Project.

The upper basin terrain is rugged, with rocky slopes, V–shaped canyons, and few flat valleys or plateau areas. Elevations range from 10,400 feet at the headwaters to about 200 feet at Folsom Dam; the average basin slope is about 80 feet per mile. Below the dam, the land slopes gently to Sacramento where the elevation is about 20 feet.

Most of the seasonal runoff from the American River basin occurs from March through May, with peak six–day storm runoff typically occurring during January and February. The wet season is November through April. Precipitation varies throughout the drainage area, ranging from 16 to 20 inches on the valley floor to about 70 inches in the higher mountains. Average precipitation in the upper basin above Folsom Dam is about 53 inches. Precipitation falls as rain up to the 5,000–foot elevation and as snow at higher elevations. Some tropical storms produce rain in the highest elevations of the basin.

Winter snowfall above 5,000 feet normally accumulates until April; increasing temperatures mark the beginning of the snowmelt season. Average annual runoff from the basin is 2.8 million acre–feet, which even in a below–normal year will fill Folsom Reservoir by the beginning of the summer. Streamflow varies throughout the year and is highest in winter and spring.

Recreation and outdoor activities are important to most Californians, especially those who frequent the American River basin. The American River canyons above Folsom Dam contain a wide variety of environmental features which support a valuable ecosystem. The area is used heavily by hikers, anglers, and whitewater rafting enthusiasts. Folsom Lake State Recreation Area is one of the most popular sites in California, and the lower American River Parkway contains the Jedediah Smith Recreation Trail along which over a million visitors bike, walk, and horseback ride annually. The Lower American River is recognized as a National Canoe Trail and recreation river in both the State and federal Wild and Scenic River Systems.

Flood Control Needs

Because it is at the confluence of two major rivers, a large portion of the Sacramento area is threatened by flooding. Flows into Folsom Reservoir during the February 1986 storms exceeded the reservoir design event by about 160,000 acre–feet (six–day peak inflow volume).

Memories of "mess and misery" stay in the minds of flood victims for a long time.

Flows on the lower American River downstream from Folsom Dam rose to 134,000 cubic feet per second, exceeding the safe channel capacity by 19,000 cfs.

If rains in the American River basin had continued for just a few more hours, releases to the American River would have increased to levels that could have caused levee failure, resulting in heavy losses of life and billions of dollars in damage.

When Folsom Dam was completed in 1955, the Corps estimated that the facility provided Sacramento with about a 250–year level of flood protection. The Corps reassessed the risk using updated hydrologic data, including the 1986 storm of record and large December storms of 1955 and 1964. In this reassessment, the Corps determined that the 1986 storm had a 1–in–70 chance of occurring in any given year and that Sacramento had only a 63–year level of protection (based on analytical methods used at the time). This leaves Sacramento with "...one of the lowest levels of flood protection of any U.S. city of its size" (Sacramento District Engineer, U.S. Army Corps of Engineers 1995).

Under existing conditions, the compounded risk of flooding over a 30–year period is about 31 percent or 1 in 3. With the temporary reoperation of Folsom Reservoir for more flood control storage during the winter, the existing level of protection (now estimated to be at the 80–year level, based on the Corps' new Risk and Uncertainty method of analysis) is increased to a 100–year level, or 1 in 100 in any given year.

The area at risk shown in Figure 2 covers roughly 110,000 acres. There are more than 160,000 homes and structures, 400,000 residents and $37 billion in developed property in the area. If floodflows in the fast–reacting American River were to overtop a levee in the Sacramento urban area, the results would be devastating.

- The lack of warning time on the American River system, combined with the nature of a levee break and the difficulty in evacuating residents, means some deaths and many injuries are inevitable.
- Damages would range from $7 billion to $16 billion with depths of flooding up to 20 feet.
- Hundreds of public facilities, including schools, hospitals, care facilities, colleges, water and wastewater treatment plants, electric utility substations, fire stations, police stations, government offices, and transportation systems would be damaged and services would be disrupted.
- The near–term and long–term disruption to the regional economy, public utilities, and government would be severe.

Water Supply Needs

Runoff from the American River basin also influences a large water supply service area. This area covers approximately 3,350 square miles and includes parts of five counties: El Dorado, Placer, Sacramento, San Joaquin, and Sutter. The Bureau's study area lies primarily in the Central Valley but extends into the foothills in portions of El Dorado and Placer Counties. Figure 3 identifies the Bureau's study area.

Major rivers contributing to the study area's surface water supply are the American, Bear, Calaveras, Cosumnes, Feather, Mokelumne, Sacramento, San Joaquin, and Stanislaus. Extensive groundwater aquifers underlie the Central Valley portions of the study area.

Population and land use are two significant factors in determining water supply demand. Approximately 1.7 million people live in the area, mostly in Sacramento and Stockton. Urban expansion and development in the foothills are expected to more than double the population to 3.8 million people by 2030, as projected by the State Department of Finance.

Even with the projected population increase and subsequent urban development, irrigated agricultural land use will still be significant. Currently, over 500,000 acres in the study area are classified as irrigated agricultural land. By 2030, this acreage is projected to decrease by 5 percent.

Current annual water demand in the area is estimated at 2.7 million acre–feet. Agriculture uses approximately 75 percent of the total water demand, while municipal and industrial use accounts for most of the remainder. Water is also required to meet specific minimum streamflow requirements for environmental protection. These demands (not included in the 2.7 million acre–feet) vary by county within the study area; the largest environmental water needs are in Sacramento and San Joaquin Counties.

In 1994, the Bureau concluded that demand in the area through 2030 will exceed supplies by up to 521,000 acre–feet per year and that new sources of water supply or demand reduction or both would be needed before then.

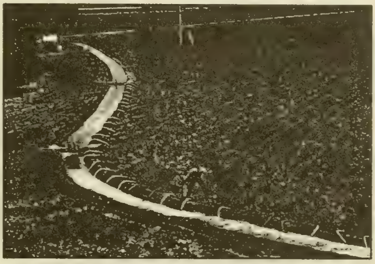
Most of the water supply development in the ARWRI study area is for and by local water agencies. However, the federal government did begin two water supply projects in the area.

Historical American River Water Supply Plans

1965 Auburn Multipurpose Dam

In the 1960s, the Bureau proposed constructing a large multipurpose dam near Auburn as a component of the Central Valley Project. The facility would be just downstream of the confluence of the north and middle forks of the American River. The multipurpose Auburn Dam was authorized by Congress in 1965 by Public Law 89–161.

Construction began in 1967 and was suspended after the Oroville earthquake in 1975 due to design concerns raised by seismic activity on the Foothill Fault system. The dam was to include 2.3 million acre–feet of water supply and flood control storage as well as a hydroelectric generating plant and recreation features. The project has not been deauthorized; however, the Bureau currently has no plans to build the



A farmer sets furrow irrigation pipes in his San Joaquin County fields. Agriculture uses approximately 75 percent of the total water demand in the Bureau's five–county study area.

2.3 million acre–foot multipurpose storage project.

Folsom South Canal

San Joaquin County. In 1990, San Joaquin County filed a water rights application to divert 322,000 acre–feet during wet years from the American River through the Folsom South Canal. The 27–mile–long canal system would need to be extended to its planned 62–mile length to deliver this water to San Joaquin County. The canal now terminates at the Sacramento Municipal Utility District's Rancho Seco nuclear power plant (currently decommissioned). The water would be used to stabilize groundwater levels which is an integral component of San Joaquin County's water needs. The Folsom South Canal, designed to serve the water supply needs of San Joaquin County, is an authorized portion of the federal Central Valley Project and was never completed.

East Bay Municipal Utility District. In 1970, the East Bay Municipal Utility District signed a water supply contract with the Bureau to take delivery of American River water via the Folsom South Canal to EBMUD conveyance facilities that lead to the San Francisco Bay Area. This agreement sparked 18 years of legal battles culminating in a 1990 California Superior Court decision which allowed EBMUD, under certain conditions, to draw up to 150,000 acre–feet per year of American River water via the canal. This delivery would largely be limited to nondrought years and is not to interfere with minimum flows in the Lower American River designated to protect fisheries. EBMUD is preparing an EIR on a physical connection between the Folsom South Canal and the EBMUD system, and EBMUD is not taking delivery of its American River entitlement water.

Solutions to Flood Control Needs

The 1986 storms served as a "wake up call" to the realization that Sacramento had inadequate flood protection and prompted local, State, and federal agencies to identify ways of solving the area's flood control problems. As it stands now, the risk of flooding in the American River basin is high and the potential consequences of a levee failure would be disastrous.

As with all flood control projects, there are federal, State, and local sponsors for the study and proposed project. Respectively, those sponsors are the U.S. Army Corps of Engineers, the California State Reclamation Board, and the Sacramento Area Flood Control Agency. The Reclamation Board and SAFCA have expressed their intent to be the nonfederal sponsors of the authorized flood control project.

The studies conducted by the Corps, in cooperation with The Reclamation Board and SAFCA, were designed to:

- Define the flood risks to the Sacramento area;
- Identify potential flood control measures and describe the most feasible ones in detail;
- Define and present a flood control plan for the area;
- Describe the relationship between the flood control plan and other water resource needs and opportunities in the study area; and
- Define the requirements of implementing the plan.

Figure 2

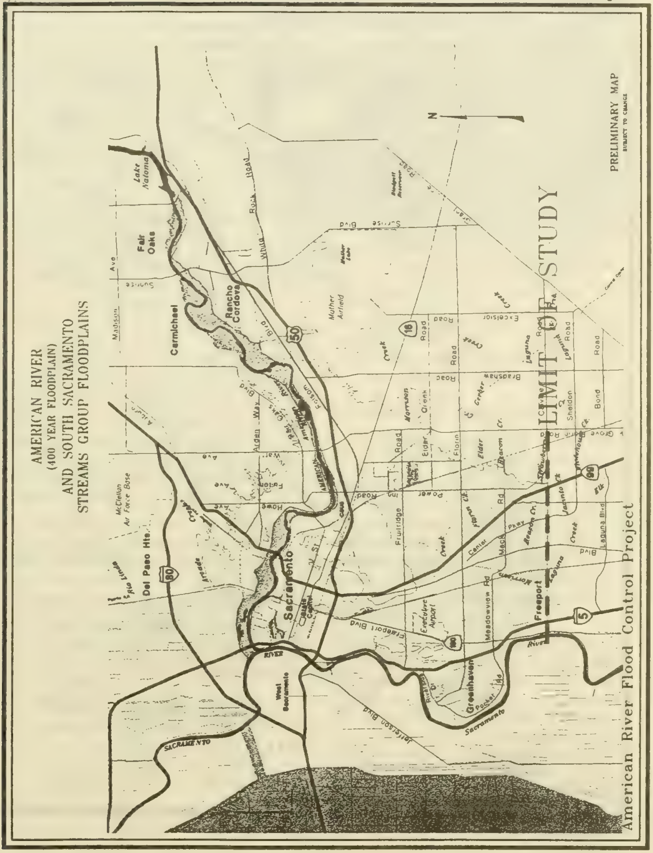
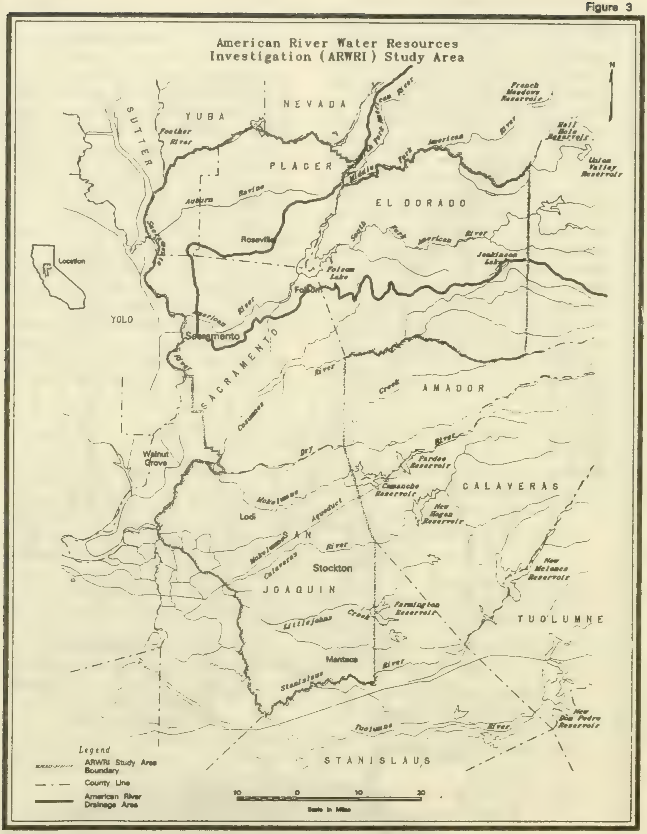
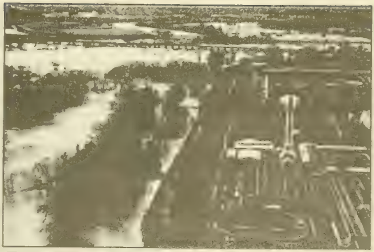

AMERICAN RIVER
(400 YEAR FLOODPLAIN)
AND SOUTH SACRAMENTO
STREAMS GROUP FLOODPLAINS
PRELIMINARY MAP
SUBJECT TO CHANGE
LIMIT OF STUDY
N
Lake Natoma
Fair Oaks
Carmichael
Rancho Cordova
Mather Airfield
McClellan Air Force Base
Del Paso Hts.
Sacramento
West Sacramento
Executive Airport
Greenhaven
Freeport
AMERICAN
RIVER
SACRAMENTO
Sacramento River
Sunrise Blvd
Madison Ave
Folsom Blvd
Fruitridge
Florin
Elder Creek
Morrison Creek
Bradshaw Road
Excelsior Road
Sheldon
Bond Road
Laguna Blvd
Meadowview Rd
Freeport Blvd
Jefferson Blvd
Power Inn Road
Howe Ave
Fulton Ave
Watt Ave
Arden Way
Auburn Blvd
Whitney Road
Rock Road
Arcade Creek
Rio Linda
Pocket Rd
Riverside Bl
50
80
5
99
16
160
American River Flood Control Project

Figure 3



American River Water Resources Investigation (ARWRI) Study Area

Results of the studies were presented in a series of reports, beginning with the December 1991 *American River Watershed Investigation Feasibility Report* and *Environmental Impact Statement/ Environmental Impact Report*. In 1992 Congress directed the Corps to do specific followup activities regarding their flood control studies. The Corps chose to use the SIR to present the results of those followup activities. The Corps' *American River Watershed Project Final Supplemental Information Report* and *Supplemental EIS/EIR* were released in March 1996 to complement the December 1991 reports.



The American River, carrying over 130,000 cfs, during the February 1986 flood. The state fairgrounds is at right, and heavily populated residential areas extend several miles upstream on both sides of the river. The preferred detention dam alternative could provide enough protection to avoid overtopping the levees in the future.

The SIR reflects information and comments gathered from extensive review by both the public and government agencies. The SIR provides the Sacramento community, SAFCA officials, and The Reclamation Board the information necessary to make a decision regarding a plan to provide additional flood protection to the Sacramento area.

The Reclamation Board's and SAFCA's recommendations were used by the Corps' Sacramento District to complete the SIR and forward its recommendations to Washington, D.C. in February 1996 for approval and potential authorization in the Water Resources Development Act of 1996.

Authorizing Legislation for the Flood Control Studies

Section 209 of the Flood Control Act of 1962 (P.L. 87–874, 10/23/62)

Fiscal Year 1987 Appropriations Act (P.O. 99–91, 10/30/86)

Fiscal Year 1988 Continuing Appropriations Act (P.L. 100–202, 12/22/87)

Flood Control Alternatives

The flood control alternatives described in the SIR were developed by combining flood control measures from three categories: (1) increasing outlet efficiency of Folsom Dam and Reservoir; (2) increasing the rate of flood releases from Folsom Reservoir; and (3) increasing flood storage in the American River basin. From the 17 measures evaluated, nine alternatives were developed and analyzed in the November 1994 *Alternatives Report*.

Based on public and agency input, three alternatives and the no–action plan were chosen for evaluation in the draft SIR based upon public and agency review of the *Alternatives Report*. The draft SIR was reviewed by State and local agencies; 11 public workshops and hearings were conducted to gather public input about the alternatives. The features of the preferred flood control plan (as well as the alternatives not selected) are summarized in Table 1.

Preferred Alternative. The Corps' economic analyses of the alternatives show that the Detention Dam Plan yields maximum net benefit and consequently was designated by the Corps as the NED plan. The local sponsors (the SAFCA Board and The Reclamation Board) have likewise identified the Detention Dam Plan as the locally preferred plan because:

- The Detention Dam Plan significantly reduces the flood risk in Sacramento from the American River to less than 1 in 500 (500–year level of protection). This level is commensurate with other large cities such as St. Louis and Kansas City;
- It is the most cost effective and provides the highest level of economic benefit;
- It can safely pass the Standard Project Flood (recognized as the standard for protection of urban areas, approximately a 225–year event on the American River) with about a 95 percent reliability (as opposed to about 63 percent reliability for the Folsom Stepped Release Plan);
- It provides a high level of protection without additional dependence on the levee system, and thus is considered the safest and most reliable of the three alternatives; and
- It minimizes environmental impacts upstream and downstream of the dam.

Table 1. American River Watershed Project Flood Control Alternatives

	Preferred Flood Control Plan	**Flood Control Alternatives Considered But Not Selected**	
	Detention Dam Plan	**Folsom Stepped Release Plan**	**Folsom Modification Plan**
Description	Construct 508–foot high flood detention facility on the North Fork American River, construct seepage wall in lower American River levees, levee improvements along Sacramento River in Natomas, and return the maximum flood storage in Folsom Reservoir to 400,000 acre–feet. Acquisition/restoration of 2,962 acres along Yuba River, implement adaptive management plan on 1,481 acres within the American River canyon, and relocation of Hwy. 49.	Increase flood storage in Folsom Reservoir varying from 400,000 to 670,000 acre–feet, increase objective release to 145,000/180,000 cfs, lower main spillway by 15 feet, enlarge eight river outlets, construct seepage wall in lower American River levees, levee improvements along the Sacramento and Yolo Bypasses, Sacramento Weir, and Sacramento River in Natomas. Improving recreation features including constructing two day–use parks, trails and a bicycle bridge; acquisition/restoration of 362 acres of mitigation lands; installing water temperature shutters; and implementing a cultural resources recovery program.	Increase flood storage in Folsom Reservoir varying from 475,000 to 720,000 acre–feet, lower main spillway by 15 feet, enlarge eight river outlets, construct seepage wall in lower American River levees, and levee improvements along the Sacramento River in Natomas. Improving recreational features at Folsom Reservoirs, installing water temperature shutters; and implementing a cultural resources recovery program.
Total Cost [1]	$949 [2]	$627	$470
Annual Benefits/Costs [1]	$204 / $95	$130 / $72	$126 / $49
B/C Ratio	2.1 to 1	1.8 to 1	2.6 to 1
Net Annual Benefits	$109	$58	$77
Impacts			
Annual Water Supply (est)	—	$3.5	$9.2
Annual Power Supply (est)	—	$1.2	$2.5
Annual Chance of Flooding	1 in 500	1 in 235	1 in 180
30–Year Cumulative Flood Risk	6 percent	12 percent	15 percent
Average Annual Equivalent Damages (Existing $170)	$29	$73	$82
Ability to Pass SPF [3, 4]	95 percent	63 percent	50 percent
Ability to Pass PMF [5]	100 percent	95 percent	90 percent

1 Costs and benefits are in millions of dollars; b/c ratios are computed from baseline conditions (before reoperation).
2 Includes $88 million in sunk construction costs which will probably not require an additional federal appropriation.
3 Within the lower American River channel capacity.
4 SPF = Standard Project Flood. The percentages shown are based on outflows being controlled to lower American River design levels.
5 PMF = Probable Maximum Flood

Solutions to Water Supply Needs

Search for Solutions

In 1991, Congress authorized the Bureau to investigate the water resources needs of the American River basin. The American River Water Resources Investigation identified the water needs in the American River basin and formulated alternatives to meet those needs. The following objectives were established:

- Manage groundwater basins and surface water supplies to maintain beneficial uses and to protect water quality;
- Provide water to meet projected (year 2030) water demands, including municipal and industrial and agricultural needs;
- Provide flows sufficient for water–oriented recreation;
- Sustain the riverine and associated biological environment; and
- Be consistent with ongoing activities addressing flood protection needs.

After the public review is completed, the Bureau will recommend a preferred plan that could be studied and evaluated in greater detail in project specific environmental reports.

In August 1991, a group was organized by the Bureau and the Sacramento Metropolitan Water Authority. It includes the American River Authority, San Joaquin County Flood Control and Water Conservation District, the City and County of Sacramento Office of Metropolitan Water Planning, and the California Department of Water Resources on behalf of Sutter County. These entities entered into an agreement that defines SMWA and the interests it represents as equal cost–sharing partners with the Bureau for ARWRI, and identifies the roles and responsibilities of the various interested agencies.

Authorizing Legislation for the Water Supply Studies

Energy and Water Development Appropriations Act of 1991 (P.L. 101–514, 11/5/90)

Water Supply Alternatives

In January 1996, the Bureau and SMWA completed a planning and evaluation process that developed alternatives to meet water–related needs of the study area. The results were reported in the *American River Water Resources Investigation Draft Planning Report* and *Draft Environmental Impact Report/Environmental Impact Statement*. This draft document is currently undergoing a review process, results from which may change the alternatives.

In these studies, the water–related needs within the study area were refined to include area–specific analysis and alternatives were developed to meet those needs. The effects of the alternatives were appraised and compared, resulting in identifying and evaluating two categories of action alternatives. These categories are:

- **Conjunctive use alternative**. This alternative is based on using storage in the study area's groundwater basins. In wet years, surface water use would be maximized and groundwater pumping reduced. In dry years, ground water pumping would be increased and surface water diversion decreased. The features of the conjunctive use alternative are summarized in Table 2.

- **Auburn Dam alternative.** The Auburn Dam alternative uses local groundwater basins to store wet year surplus flow. This alternative also provides regulatory storage of Auburn to provide water year–round. By extending the period of available water, the size of diversion facilities is reduced from what is needed for the Conjunctive Use alternative.

  Three alternative sizes are proposed for Auburn Dam: 430,000 acre–feet, 900,000 acre–feet and 1,200,000 acre–feet. The 900,000 and 1,200,000 acre–feet Auburn Dam alternatives provide 600,000 acre–feet and 900,000 acre–feet of dedicated flood storage, respectively. The features are summarized in Table 2.

Sprinkler irrigation is a common method in orchards along the American and Sacramento Rivers. The Bureau's water supply alternatives include water conservation and water reclamation elements.

All of the proposed alternatives use similar project components to deliver comparable amounts of water to the study area on an average annual basis. The operation, size, and costs of the project components needed for various alternatives, however, are significantly different. Each alternative also includes components of water conservation, wastewater reclamation, new or expanded diversions, and new smaller storage facilities.

Table 2. Water Supply Alternatives Developed by the Bureau and SMWA

	Conjunctive Use Alternative	Auburn Dam Alternative
Description	♦ Provides storage in groundwater system by varying the mix of surface water and groundwater used. In wet years, surface water use is maximized and groundwater pumping is reduced. In dry years, groundwater pumping increased and surface water use decreased. Focus is on increasing ability to switch from year to year. Portions of the study area do not have ability to pump volumes of groundwater adequate to support a conjunctive use program, needs of these areas are met by other components	♦ Provides regulatory storage at new reservoir on the American River at Auburn. Certain level of conjunctive use still required. Additional local storage to serve El Dorado county ♦ Three dam configurations are under consideration: a 430,000 af water supply only reservoir; a 900,000 af multi–purpose reservoir with approximately 200 year level of flood protection; and a 1,200,000 af multi–purpose reservoir with approximately 500 level of flood protection. All provide the same level of water supply
Wastewater Reclamation	♦ Currently planned wastewater reclamation projects are included.	♦ Currently planned wastewater reclamation projects are included.
Conservation	♦ The 2030 water demand projections assume 10 percent reduction in per capita municipal and industrial demands due to conservation The alternative assumes an additional 5 percent reduction by 2030, resulting in a total 15 percent reduction in per capita M&I demands.	♦ The 2030 water demand projections assume 10 percent reduction in per capita municipal and industrial demands due to conservation. The alternative assumes an additional 5 percent reduction by 2030, resulting in a total 15 percent reduction in per capita M&I demands.
New/Expanded Diversions	♦ Alternative includes new or expanded diversions. Some exercise existing, but currently unused water rights and contractual rights. The rest develop new water rights or contracts or transfers from current water rights holders or water service contractors to others Transfers from outside the study area are included ♦ Alternative also includes new or expanded treatment, conveyance, and distribution facilities. These may include conveyance and distribution systems from diversions on the American and Sacramento Rivers to Sutter, Placer, El Dorado, and Sacramento Counties, from the American River via the Folsom South Canal to San Joaquin County and from the Sacramento River, upstream from the Sacramento County Regional WTP, to San Joaquin County. Conveyance into San Joaquin County may include an extension of the Folsom South Canal	♦ New or expanded diversions from the American and Sacramento Rivers included. Some exercise existing, but currently unused, water rights and water service contract rights; others transfer existing entitlements, or involve diversion of the new water supplies developed by the Auburn facility. ♦ These facilities are similar to the Conjunctive Use Alternative, but smaller, as Auburn Dam regulates available water supplies substantially. Alternative also includes new or expanded treatment, conveyance, and distribution facilities. These may include conveyance and distribution systems from diversions on the American and Sacramento Rivers to Sutter, Placer, El Dorado, and Sacramento Counties, from the American River via the Folsom South Canal to San Joaquin County and from the Sacramento River, upstream from the Sacramento County Regional WTP, to San Joaquin County conveyance into San Joaquin County may include an extension of the Folsom South Canal.
New Storage	♦ Potential options for new storage include: Texas Hill Dam and Small Alder Dam in El Dorado County; and South Gulch, Duck Creek, Farmington Reservoir, or Clay Station for San Joaquin County. Delivery of Stanislaus River water to eastern San Joaquin County also included.	♦ New reservoir on the American River at Auburn is primary new storage facility for this alternative. Reservoir will be sized to meet the water supply needs of the study area. Additional surface water storage in El Dorado County included.

Interrelationship of Preferred Flood–Control Plan and Water Supply Alternatives

As noted earlier, the Corps, The Reclamation Board, and SAFCA have identified the Detention Dam Plan as the preferred plan for flood control, based upon the net economic benefit and the lowered flood risk provided by that plan. The Bureau and SMWA have yet to identify a preferred water supply alternative. Table 3 summarizes the features and impacts of possible combinations of the water supply alternatives proposed by the Bureau with the Detention Dam Plan.

It is important to consider the logical sequence of implementing the projects, as well as environmental concerns, in discussions about the interrelationship of the respective study recommendations.

- Flood control proponents (local cost–sharing sponsor) agree on a recommended flood control plan providing 500–year protection; it is unlikely that those entities with public safety responsibilities will support a reduced or delayed level of flood protection in order to accommodate a water supply development plan.

- The clear goal for public safety agencies is to pursue the 500–year Detention Dam Plan through the full Congressional process during 1996.
- The Bureau's ARWRI report has just entered the 90–day review stage. As yet a preferred alternative has not been selected.

The Detention Dam Plan is fully compatible with the Bureau's conjunctive use water supply plan or with the 1.2 million acre–feet Auburn Dam storage plan; the latter includes approximately the same flood control storage capacity as the Corps' Detention Dam Plan.

Implementing either of the two smaller Auburn Dam water supply storage plans (430,000 acre–feet or 900,000 acre–feet) is not compatible with the preferred flood control plan because neither is of a sufficient size to provide a 500–year level of flood protection. However, the Detention Dam Plan could be constructed now as a flood control only dam and be expanded later for water supply after environmental studies are completed and money is available to fund an enlargement.

Table 3. Features and Impacts of Detention Dam and Water Supply Alternatives[1]

Feature or Impact	**Flood Control Alternative: Detention Dam (FC)**	**Water Supply Alternatives (WS)**			
		Conjunctive Use	**430,000 af Auburn Storage[3]**	**900,000 af Auburn storage[3]**	**1,200,000 af Auburn storage[3]**
Local water supply impact	FC provides no water supply	WS meets projected 2030 demands			
CVP impact[2]	FC returns CVP storage at Folsom	WS returns CVP storage at Folsom			
Flood control impact	FC provides greater than 500–year level of protection	WS provides only incidental protection		WS provides greater than 200–year level of protection	WS provides approximately 500–year level of protection
Ecosystem and recreation impact	FC has impacts during construction; FC occasionally inundates American River canyons and recreational facilities; for a detailed description of the impacts refer to the *Supplemental Information Report March 1996 American River Watershed Project, California*	WS has environmental impact during construction; WS has insignificant long–term impact	WS has environmental impact during construction; WS permanently inundates American River canyons and recreational facilities	WS has environmental impact during construction; WS permanently inundates American River canyons and recreational facilities	WS has environmental impact during construction; WS permanently inundates American River canyons and recreational facilities
Total cost in 1995 dollars, (in millions of dollars)	$949	$1,318	$1,422	$1,491[4]	$1,603[4]

[1] Information in this table compiled from reports prepared by the Corps of Engineers and Bureau of Reclamation.
[2] Folsom modification and Folsom stepped release plans assume permanent reallocation of CVP storage in Folsom.
[3] For simplicity, WS storage alternatives are identified here in terms of storage at Auburn, however, all storage alternatives include other components.
[4] Both water supply and flood control costs have been included.

The Detention Dam Plan has some adverse environmental impacts for which a mitigation plan has been developed. Please refer to the *Supplemental Information Report March 1996 American River Watershed Project, California* for a complete description of impacts and mitigation features.

The water supply conjunctive use plan by itself would not provide added flood protection; however, no inundation of the American River canyons would occur and the plan would supply water to meet the 2030 needs.

All the Bureau's Auburn storage plans, depending on their size, require permanent inundation of parts of the American River canyons. An environmental mitigation plan is included as part of the Bureau's report. Please refer to the January 1996 *American River Water Resources Investigation Planning Report and Draft EIR/EIS* for more information.

Process and Timeline

Flood Control. On February 23, 1996, the Corps Division Engineer's Notice was signed for the American River Watershed Project Supplemental Information Report. The Corps Headquarters initiated its review process on March 1, 1996, by providing the SIR to the State of California and federal agencies for a 90–day review. The Corps Headquarters' review process should culminate with the Chief of Engineers' Report by June 30, 1996. The Chief of Engineers' Report will then be sent to the Assistant Secretary of the Army for Civil Works for further Administration processing. Ultimately the report will be submitted to Congress for inclusion in the Water Resources Development Act of 1996.

If the Detention Dam Plan is authorized as part of WRDA 96, advanced design of the project would begin in early 1997 and construction would begin in 2000. Completing the dam and work on the lower American River and Sacramento River levees would take approximately 10 years. At the end of construction, the interim flood control reoperation of Folsom Reservoir would be terminated and flood storage space at Folsom Reservoir would return to a fixed 400,000 acre–feet level. With completion of the project, Sacramento would be provided a 500–year level of reliable flood protection and options for future expansion of Auburn Dam for water supply would be preserved.

Water Supply. In February 1996, the Bureau released its draft ARWRI Planning Report for public review. During March and April 1996, the Bureau will conduct workshops and hearings to receive public input and comments about their report. The comments will be compiled and responded to in the final version of the report. The alternatives may change pending the outcome of the review process.

Egrets land and feed along the O'Neill Forebay. Both the Corps' SIR and the Bureau's ARWRI reports contain environmental mitigation plans for their respective projects.

The nonfederal sponsor then will identify a preferred plan and the report will be finalized in late spring or summer 1996.

It is possible that portions of the alternatives could be implemented with limited or no federal involvement. Because of the multiple independent features associated with the water supply alternatives, a precise time line for any of the plans is not available.

Other Water Supply Programs

There are a number of ongoing water supply planning programs and initiatives that address issues in various portions of the ARWRI study area and adjacent areas. Many of these activities are based on information and analyses developed by the Corps' SIR and the Bureau's ARWRI. Major programs include the Water Forum, East Bay Municipal Utility District Action Plan, and the CALFED Bay–Delta Program.

The Water Forum, established in September 1993, is a diverse group of business and agricultural leaders, environmentalists, citizen groups, water managers, and local governments in the Sacramento Metropolitan area and Placer and El Dorado Counties. The Forum is conducting a consensus building effort to develop a management plan with the following two objectives:

- Provide a reliable and safe water supply for the Sacramento area's economic health and planned development through the year 2030; and
- Preserve the fishery, wildlife, recreational, and esthetic values of the lower American River.

In January 1996, the Forum released *Progress Towards a Regional Water Agreement*, which presents a range of water management measures and solicits stakeholder feedback. The measures being considered are consistent with both ARWRI alternatives. The Forum is proposing a changed pattern of flows in the lower American River to further protect and enhance fishery resources. The Forum "as a group does not take a position on Auburn Dam," however, Forum members reserve the right to take their entity's position regarding a dam at Auburn.

As part of its Water Supply Action Plan, adopted in September 1995, EBMUD is taking steps to ensure a reliable, high quality water supply for its customers. EBMUD is preparing an EIR on a physical connection from the CVP Folsom South Canal to the EBMUD Mokelumne Aqueducts.

Concurrently, EBMUD also is pursuing mutually acceptable joint water supply projects with agencies in eastern San Joaquin County and Sacramento area interests. If implemented, these projects would meet the future water needs of both EBMUD and certain entities within the ARWRI study area.

The EBMUD Action Plan, including the Folsom South Canal connection and the mutually acceptable joint water supply projects are not inconsistent with either ARWRI alternative.

On a statewide basis, other water supply management programs such as the CALFED Bay–Delta Program, the Bureau, and others are involved in various planning activities, including implementing the Central Valley Project Improvement Act which may impact operation of the Stanislaus River system. Both ARWRI alternatives rely on substantial diversions from the Stanislaus River. To the extent that these other activities increase water supply availability from the Stanislaus River, they are consistent with the ARWRI alternatives.

Local Sponsors of American River Reports

Sacramento Area Flood Control Agency

- City of Sacramento
- American River Flood Control District
- Sutter County
- County of Sacramento
- Reclamation District No. 1000

Sacramento Metropolitan Water Authority

- Carmichael Water District
- City of Folsom
- Clay Water District
- Galt Irrigation District
- Omochumne–Hartnell Water District
- Rio Linda Water District
- Citrus Heights Water District
- Orange Vale Water Company
- Fair Oaks Water District
- Northridge Water District
- Rancho Murieta Community Service District
- San Juan Water District

American River Authority

- Placer County
- Placer County Water Agency
- El Dorado County
- El Dorado County Water Agency

City/County Office of Metropolitan Water Planning

- City of Sacramento
- County of Sacramento

San Joaquin Flood Control and Water Conservation District

Mr. FAZIO. Comment on how you think we could most efficiently provide the 500,000 acre feet which is anticipated to be the deficit for the region within the next 35 years or so. There seems to be no cost differential between surface water development and additional conjunctive use, groundwater management, et cetera. Is there any way you could comment on the, perhaps the efficacy of either approach as it relates to our flood protection, the effort in that regard.

Ms. BENEKE. I can comment briefly on it. The study that you refer to of course analyzed several different alternatives to meet water supply needs. And as I understand it, some modification to operations of Folsom was one of the alternatives considered. I also am aware that the State is doing some bridging analysis on the Corps work and the Bureau of Reclamation work . I believe that Reclamation is going to also continue to do some bridging work and look at the very issues that you were raising.

Mr. FAZIO. The EIR and EIS are still out there to be completed I understand?

Ms. BENEKE. It is the Corp's EIS that you're referring to?

Mr. FAZIO. The Bureau's I believe.

Ms. BENEKE. The Bureau's EIS—yes.

Mr. FAZIO. Yes.

Ms. BENEKE. We're going to be doing some further bridging work. We could certainly give you a written report on what we're anticipating in that regard.

[The information follows:]

AMERICAN RIVER WATER RESOURCES INVESTIGATION

Five public hearings will be held on April 9 through April 17, 1996, in order to gather comments concerning the EIR/EIS. The comment period will close on May 3, 1996. At that time, Reclamation will revise the report based upon input received during the comment phase with the final EIR/EIS expected in July 1996.

Mr. FAZIO. Is it your—you've seen the report, haven't you?

Ms. BENEKE. Correct.

Mr. FAZIO. Is it your understanding a conjunctive use plan could be developed with or without the detention dam?

Ms. BENEKE. That's my understanding, yes.

Mr. FAZIO. So the, the Auburn Dam alternative is compatible with the detention dam plan if the total facility capacity is configured to be in the 900,000 acre-feet range?

Ms. BENEKE. You're getting ahead of me.

Mr. FAZIO. Okay. Well, I would appreciate if——

Ms. BENEKE. I think we need to get back to you.

Mr. FAZIO [continuing]. You could look at the report and perhaps give your opinion for the record on this.

Ms. BENEKE. Sure.

[The information follows:]

AUBURN DAM ALTERNATIVE

Both alternatives analyzed in the draft reports could be developed with or without the Auburn Detention Dam alternative (approximately 900,000 acre-feet capacity) presented in the Corps of Engineers report on the American River Watershed Project without affecting the ARWP flood protection accomplishments. The Auburn Dam alternative options presented in the ARWRI reports are sized to meet the water supply needs of the study area and would have different levels of flood protection, ranging from no protection to 400-year protection. The 900,000 acre-feet option would have approximately 200-year protection.

Mr. FAZIO. It's a very significant issue for the debate that Congress is going to be having this year on flood protection for Sacramento.

Ms. BENEKE. All right.

Mr. FAZIO. Thank you, Mr. Chairman. And thank all of you for your cooperation not only on this occasion but on so many others.

Mr. MYERS. Thank you. Mr. Riggs has a conference with the other body, so he had to leave, but he had some questions he would like to provide for the record at this point.

Secretary BABBITT. We would be happy to respond in writing.

[The information follows:]

QUESTIONS SUBMITTED BY THE HONORABLE FRANK D. RIGGS

COST SHARING -- DEL NORTE COUNTY AND FORT BRAGG

Mr. Riggs. On February 7, 1996, I wrote to Commissioner Martinez regarding the Bureau of Reclamation's cost sharing intentions for the Del Norte Country and Fort Bragg studies for which funding was included in the FY 1996 Appropriation Act. I have not yet received a response. What is the status of those studies? (Letter attached.)

Mr. Martinez. Reclamation staff has been researching policy guidelines and discussing intent with Congressional staff. Reclamation has been working with the clients via meetings, correspondence, phone calls, and exchange of technical data to determine needs and objectives. A draft proposal has been forwarded to each of the clients for accomplishing the work. Both proposals are based on the concept that work is in the Appraisal Study phase, and per House Report 429-64, Title XVI, Section 1603 is nonreimbursable and will be performed with 100 percent Federal funds. Detailed information for both studies will follow:

Del Norte County and City of Crescent City Wastewater Reclamation Study

The proposal for Crescent City is that the City perform an Appraisal Study and environmental work for upgrade and expansion of the regional wastewater treatment facilities. We will transfer appropriated funds to the City via a Cooperative Agreement, minus a portion of the funds needed to launch the program and manage the Agreement. The City seems to be in a position to effectively perform this work, and desires to do that, independent of Reclamation's technical assistance. Funds should be adequate to complete an Appraisal Study and perform some work toward compliance with environmental laws such as the National Environmental Policy Act, the Endangered Species Act, and the California Environmental Quality Act, plus other regulations.

Fort Bragg Water Reclamation Study

The proposal for Fort Bragg is to develop a Plan of Study and an Appraisal Study, then decide whether a Feasibility Study is justified. A Plan of Study will lay out a strategy with goals and milestones to accomplish the Appraisal Study. The Appraisal Study will incorporate work the City has performed to date and has ongoing, and will formulate and evaluate potential alternatives. Limited environmental compliance work will also be performed, primarily scoping out analysis needed and beginning field work to comply with Federal and State laws and regulations.

At Fort Bragg's request, Reclamation will take the lead in developing the Plan of Study, performing the Appraisal Study, and providing technical expertise. Fort Bragg staff, and possibly the City's consultants, will perform work to the extent of their technical capability. The City will be in a guidance role throughout the study. A draft Cooperative Agreement has been sent to Fort Bragg for its review and modification. The Agreement includes goals, tasks, roles, and products.

TRINITY RIVER RESTORATION ACT

Mr. Riggs. As you know, the FY 1996 Energy and Water Development Act included $5 million for the Trinity River Restoration Act. I understand that $1.3 million of this amount has not been allocated as specified, and that the "undistributed reduction" to the Trinity program is greater than the percentage for other projects. What is the program status?

Mr. Martinez. The Trinity River Restoration Program is continuing in FY 1996 with $3,767,000 in construction program funds. We continue to fund top priority projects that are identified in the action plan that is produced annually by the Task Force.

Mr. Riggs. Will all or some of the withheld funds be restored later in the fiscal year?

Mr. Martinez. If surplus funds are available, funding needs for the Trinity River project will be reassessed and may be restored.

Mr. Riggs. What is the anticipated impact on the Restoration Act?

Mr. Martinez. If H.R.2243, an amendment to the Trinity River Basin Fish and Wildlife Management Act extending the life of the program, is enacted, the impact would be minimal.

Mr. Riggs. If the full amount appropriated is not allocated in FY 1996, will the unallocated amount be available for appropriation in subsequent years?

Mr. Martinez. If proposed legislation extending the life of the project is enacted, unallocated amounts will be available for appropriation in subsequent years.

TRINITY RIVER FLOW

Mr. Riggs. Do you anticipate making the Trinity River flow determination within the time frame specified in the Trinity River Restoration Act?

Mr. Martinez. I have been advised that a time frame was not specified for making the flow determination in the Restoration Act. The flow study is separate from the Restoration Program and it is now in its last year. The decision on the future flows of the Trinity River is scheduled for December of this year.

HOOPA VALLEY TRIBE

Mr. Riggs. The Hoopa Valley Tribe has requested FY 1997 support for the Co-Management Agreement between the Tribe and Bureau of Reclamation in the amount of $750,000. What is your position on this request?

Mr. Martinez. It is my understanding that in 1993, the Bureau of Reclamation and the Hoopa Valley Tribe signed a Memorandum of Agreement for the purpose of developing a comprehensive, integrated plan to balance hatchery mitigation goals and fisheries management activities with restoration of anadromous fish in the Klamath-Trinity River Basin. The terms and subsequent modifications of this agreement have resulted in the Hoopa Valley Tribe assuming a co-management role in the monitoring and restoration of anadromous fish runs in the Trinity River. In 1994 the Tribe sponsored the first Klamath Basin Fisheries Symposium which identified and evaluated the challenges to anadromous fish restoration in the Klamath and Trinity Rivers and identified recommended solutions. As the Trinity River Restoration Program began to wind down in 1995, the Hoopa Valley Tribe stepped in to cover vital monitoring work needed to evaluate the program. The proposed funding of $750,000 in the FY 1997 budget will allow the Tribe to continue this important work and I do concur with their request.

PUBLIC RECREATION DEVELOPMENTS

Mr. Riggs. Many public recreation developments installed by concessionaires soon after Federal projects were constructed 40 to 60 years ago are today in urgent need of upgrading and major repair. The Interior Department has deemed it not in the public interest to modify term length restrictions and conditions for concessionaires. As a result, concessionaires -- such as those at Lake Berryessa in my District -- are unable to obtain requisite financing for necessary upgrading and construction improvements, and face no incentive to maintain their property developments consistent with public expectations. The House Report on the Bureau of Reclamation's FY 1996 Appropriation expressed concern about this. Do you believe you require additional legislative authority to enable concessionaires to correct the deterioration now occurring on the developments in federal project areas? If so, can you provide the language necessary so we can work to enact it?

Mr. Martinez. Additional legislative authority is not necessary to enable concessionaires to correct deteriorated facilities.

The concessionaires presently have incentives to maintain their facilities and services in an appropriate manner. Current concession agreements at Lake Berryessa have twelve years remaining and will expire either in the year 2008 or 2009.

Concession contracts at Lake Berryessa were generally issued for 30 years. Subsequently, the concessionaires were granted options to extend the length of their contracts by two additional ten year extensions, as provided for in Public Law 96-375, Section 5(a). All the concessionaires exercised and are operating under the first ten year option, and they retain the option of exercising the second ten year extension.

Current philosophy on concessions management indicates that concession agreements should be of shorter duration, and when existing contracts expire, the business opportunity to operate the concession be advertised for public bid. This allows for greater competition among businesses, more frequent opportunities to reorganize concession operations to meet the changing needs of the public, and an opportunity for the government to recoup higher franchise fees. A more responsive concessions operation should result in higher public satisfaction.

Mr. Riggs. If you have sufficient authority, what administrative steps are being taken to address this problem?

Mr. Martinez. We are currently undertaking a number of administrative steps to address this problem. We have contracted with California State University, Chico, to conduct a recreation use feasibility study and commercial services plan at Lake Berryessa. The University has established focus groups including the concessionaires, local businesses and the public. One of the major intents of this study is to provide Lake Berryessa concessionaires with valid and verifiable information on the types of facilities and services the recreating public wants and is willing to pay for. This information may help the concessionaires improve services and facilities.

Currently Reclamation's concessions are operating under an interim policy which was issued on March 27, 1995. Influencing that policy were numerous investigations by the General Accounting Office, including their most recent draft report to the Chairman, Subcommittee on Oversight of Government Management, and the District of Columbia Committee on Governmental Affairs, U.S. Senate, on Concession Contracting; Office of Inspector General; Congressional committees; and a special Secretarial task force, all of which concluded that agency concessions programs were not being operated in a business-like manner. The Secretarial task force issued a report containing several recommendations which the Secretary directed the Interior bureaus to implement. As an action of further support of the task force recommendations, a Memorandum of Understanding to promote interagency consistency and cooperation in concessions management was signed by Reclamation, the Bureau of Land Management, Forest Service, Corps of Engineers, Fish and Wildlife Service, and the National Park Service. We are at this time in the process of finalizing draft Concessions Management Policy for initiating public involvement. We offer to confer with your office regarding this draft policy.

BROODSTOCK AND SALMON STAMP PROGRAM

Mr. Riggs. In FY 1996, the following amounts were appropriated for specific fish restoration projects:

Winter Run Chinook Salmon Captive Broodstock Program	$300,000
Community Coho and Spring Run Chinook Salmon Restoration Projects	$500,000
Salmon Stamp Program	$200,000

What is the status of these programs?

Mr. Martinez. The Winter Run Chinook Salmon Captive Broodstock Program was initiated in 1991 and is scheduled to run through FY 2002. The goal of the Program is to rear Winter Run Chinook Salmon under controlled conditions until they become reproductively mature adults. Mature salmon would then be used as hatchery broodstock for continued propagation of the race. To date, Winter Run Chinook Salmon have been reared at both the Bodega Marine Laboratory and the Steinhart Aquarium in San Francisco. A genetic research element has also been initiated to assist in overall management of the Winter Run Chinook.

Reclamation has signed a Memorandum of Understanding with the National Fish and Wildlife Foundation to fund habitat restoration projects in FY 1996 on the Sacramento River for the Spring Run of Chinook Salmon in the amount of $500,000.

The Salmon Stamp Program will increase the freshwater production of young salmon in the Central Valley streams or fishery habitat. Specific fish restoration programs include repairs to fish ladders, restoration in river channels, watershed restoration, and funding of environmental compliance as appropriate. Funding is continued in FY 1996.

Mr. Riggs. What is your position on continued funding for these efforts in FY 1997?

Mr. Martinez. Reclamation staff are waiting for the release of a draft Report on the Winter Run Chinook Salmon Captive Broodstock Program. The draft Report is being prepared under the direct supervision of the Bodega Marine Laboratory, which will assess progress to date. The Report has been identified by both Reclamation's and the State of California Department of Water Resources' representatives as essential, inasmuch as it will provide the first clear formal documentation of Program accomplishments. To date, Program progress has been typically reported informally with little written documentation available. The Report should provide information that will enable determination of the status of the Program, including successes, problems, future activities, and will certainly influence future Program direction. Unfortunately, the release of the Report has been delayed from its mid-December 1995 due date. The degree of Program support that Reclamation will provide in the future depends on information presented in the Report.

NATIONAL FISH & WILDLIFE FOUNDATION

Mr. Riggs. As you know, the FY 1996 Coho and Spring Run funds were to be administered through the National Fish and Wildlife Foundation. Has a Memorandum of Understanding been signed between the Department of the Interior and the Foundation? Is any non-Federal match being required?

Mr. Martinez. A Cooperative Agreement between Reclamation and the Foundation was signed in March 1996. The Agreement stipulates that Reclamation's and National Fish and Wildlife Foundation's financial goal is to, in aggregate, match Reclamation funds on a two-to-one basis, with a minimum match of one-to-one. This includes funds for the Coho and Spring Run programs. Reclamation is working with the Foundation to identify, evaluate, and fund specific projects with the FY 1996 funds provided. FY 1995 funding for the Coho and Spring Run programs were not provided through the National Fish and Wildlife Foundation and no specific non-Federal cost sharing was required.

O&M TRINITY RIVER DIVISION

Mr. Riggs. The FY 1997 request for Central Valley Project Trinity River Division Operations and Maintenance is $3,955,000 compared to $5,454,000 appropriated for FY 1996. Why the decrease?

Mr. Martinez. The authorization of the Trinity River Restoration Program expires in FY 1996. Accordingly, the FY 1997 budget request did not include funding for the Trinity River Restoration Program. However, should legislation extend the Program through FY 1997, funds will be reprogrammed within the operation and maintenance appropriation to comply with directives in the reauthorizing legislation. The FY 1996 program also includes $824,000 to repair damage incurred during the winter of 1995 and to complete the Environmental Impact Statement to support instream flow activities. These activities are expected to complete in FY 1996, further adding to a decrease in the FY 1997 request. The decrease is partially offset by the increases in routine operation and maintenance and resource management activities, the hazardous management program, modifications at the Trinity River Fish Hatchery, for handicap access and life safety code corrections, and water conservation.

CITY OF VALLEJO

Mr. Riggs. In its Report on the Bureau of Reclamation's FY 1996 Appropriation, the House Appropriations Committee encouraged the Department of the Interior to work with the City of Vallejo, California, to find a way to permit the City to use Bureau of Reclamation facilities to transport water from Lake Curry. What progress has been made on this?

Mr. Martinez. The City of Vallejo has suspended action to gain use of the Putah South Canal for conveyance of Lake Curry water. The City has entered into negotiations with the Solano Irrigation District for an exchange of water with the District which would not require use of Federal facilities to transport non-Project water. A draft agreement has been reviewed by each agency involved in the negotiations.

PUTAH CREEK ADJUDICATION

Mr. Riggs. In its Report on the Bureau of Reclamation's FY 1996 Appropriation, the House Appropriations Committee expressed concern about late objections raised by the Department of the Interior to the settlement agreement for the Putah Creek Adjudication, Lake Berryessa, California, and encouraged the Department to work with all parties to swiftly resolve these objections. What is the status of this effort?

Mr. Martinez. I have been informed that in December 1995, the Pomo Indians of the Middletown Rancheria accepted and endorsed an agreement entitled, "Agreement Concerning the Water Rights of the Middletown Rancheria". This agreement protected the Pomo Indians' water rights on this rancheria located upstream of Lake Berryessa and thereby satisfied our concerns.

Reclamation signed the settlement agreement. The State Water Resources Control Board adopted Board Order 96-002 modifying Reclamation's permits for the Solano Project to reflect the terms of the settlement agreement.

CENTRAL VALLEY PROJECT

Mr. Riggs. The House may consider in the near future the proposed Central Valley Project Reform Act that could impact on the Trinity River and other Reclamation efforts. What is the Department's position on the latest version of this legislation? What is status of Deputy Secretary Garamendi's efforts to resolve these matters?

Mr. Babbitt. The Department remains opposed to H.R. 2738, the Central Valley Project Reform Act because it is premature and unnecessary. Deputy Secretary Garamendi has held a series of meetings over the past several months with stakeholders to try to address concerns they have about implementation of the Central Valley Project Improvement Act. A number of the issues raised have been resolved through administrative actions, and the Department is continuing to address the stakeholders' concerns through a consensus-based process.

AUBURN DAM

Mr. Riggs. What is the Department's position on construction of the proposed Auburn Dam in California ?

Mr. Babbitt. Reclamation released the American River Water Resources Investigation Draft EIS/EIR on February 2, 1996. Comments on the Draft EIS/EIR are due May 3, 1996. In the Draft EIS/EIR, two alternatives are extensively analyzed for water supply including an

Auburn Dam alternative and a Conjunctive Use alternative. Reclamation will carefully consider the comments provided before finalizing the EIS/EIR.

TITLE TRANSFER NEGOTIATIONS

Mr. Riggs. Commissioner Martinez makes the statement in his testimony that active title transfer negotiations with stakeholders are underway on a number of projects in the 17 Western states. What California projects are involved?

Mr. Babbitt. Discussions are currently being held on the possible transfer of title to the following features of the Central Valley Project: The Contra Costa Canal, Delta Division; the Bella Vista Conduit, Trinity River Division; and the Clear Creek Tunnel, Trinity River Division. Discussions also are being held on the possible transfer of title to the San Diego Aqueduct which is operated and maintained with non-Federal funds.

CENTRAL VALLEY PROJECT PURCHASE

Mr. Riggs. Some Central Valley interest have proposed purchasing the entire Central Valley Project. What is the Department's position on this ?

Mr. Babbitt. Reclamation has an active title transfer program which is considering the title transfer of appropriate facilities that are relatively simple in nature. Those facilities are single purpose and have a specific group of beneficiaries. Clearly, the Central Valley Project does not fall under either of these categories, and, in fact, is one of the most complex water projects in all the world. Many complex and difficult issues would have to be resolved and the interests of all beneficiaries and shareholders and the public would need to be fully protected.

Mr. MYERS. Mr. Knollenberg.

REPRESENTATIVE JOE KNOLLENBERG'S OPENING REMARKS

Mr. KNOLLENBERG. Secretary, Mr. Martinez, Commissioner Martinez. I am pronouncing your name right, am I not?

Secretary BABBITT. Yes.

REDUNDANCY IN DEPARTMENTS AND AGENCIES

Mr. KNOLLENBERG. I, after hearing my colleague Mr. Fazio use the word "dam" several times as a noun, I thought about using it as an adjective, in terms of the damned redundancy or at least the appearance of redundancy in some of the departments and some of the agencies. And I look at, for example, the missions of the Bureau of Reclamation. I look at the Corps of Engineers, the U.S. Fish and Wildlife Service, the National Park Service, the Forest Service, Bureau of Land Management, the Department of Agriculture and the Department of Energy. That's just to name a few. And all of those have something to say or do with what we're talking about here.

And I give you one example. And I think this was cited in your FY 1997 budget justification. It says that the—I think I'm pronouncing this right, Minidoka area project in Idaho. The project provides hydroelectric power, irrigation water for about 1,200,000 acres, flood control, recreation and fish and wildlife benefits which could be scattered among many of those agencies. And I—that's got to be a tough call. But how do you avoid duplicating what the other agencies are doing? And I guess that would be my basic question. How do you simplify and make sure we're not piling up or duplicating what the other agencies are doing?

Secretary BABBITT. Mr. Congressman, that's a very complex question that you pose. And it has its origins in a lot of history going clear back to the turn of the century when Theodore Roosevelt wasn't much of a fan of the Interior Department. He viewed it as an old dinosaur and in a wave of activism began creating other agencies, notably the Forest Service which is housed in the Department of Agriculture. There have been many other instances historically of agencies being parceled out around this town.

There have been some epic battles in this Congress. One of my predecessors—Harold Ickes—during the New Deal, I think he must have spent 90% of his energy trying to get the Forest Service back. FDR never quite gave it back to him, and the scars from those battles linger to this day.

The Corps of Engineers and the Bureau of Reclamation, during the heyday of the forties and fifties, waged armed warfare across the West. I mean they marched on dam sites and proposed competing plans to the Congress. I mean the warfare was absolutely unbelievable. There were compromises. We have dams out West which were built by one agency and operated by the other. That was the only way they could figure a way out of it. The Pick-Sloan legislation created a treaty on the Missouri River. So we operate in that kind of historic context. It's of course exacerbated by the fact that these divisions are reflected in appropriation committees and subcommittees.

I suspect you've had enough history. My view of the way around these issues is that it is the President's obligation in any administration to call people together and say this is what we're going to do, and I expect you to quit fighting about it and do it. Now in all modesty, we've had some considerable success in Florida, in the Pacific Northwest, and on the Columbia River. I think this virtual management is the only realistic way to get at this issue.

Mr. KNOLLENBERG. Let me ask you in terms of the fighting and the wars, would you say that that has subsided?

Secretary BABBITT. Very much so.

REDUCTION OF RECLAMATION'S WORK FORCE

Mr. KNOLLENBERG. In terms of that, let's speak to the President. Maybe I should direct the question to Commissioner Martinez. Last year before this Subcommittee, and it wasn't you, and by the way, congratulations on your recent appointment, Commissioner Beard testified that the Bureau of Reclamation is a leaner, more efficient organization and that their work force was reduced by over 1,500 positions from May of 1993 to March 1st of 1995. That's the day that the testifying was done. I guess I'd be interested in knowing if further streamlining is in progress, is expected, anticipated. And I'd also like to know what is the number of FTEs that you have today.

Mr. MARTINEZ. My understanding is our FTEs are about 6,400. I don't expect any major FTE reductions. I need to reevaluate where our program is going, where our mission is leading us to. You know, I've been in this business 24 years. And you know, the statement made that we're moving into water management, it's easier said than done. We need to find our proper role with respect to water management. You can address it from a technical perspective and also from an administrative perspective. And when you're talking about administrative perspective, you start dealing with water administration——

Mr. KNOLLENBERG. Let me speak to that. How many administrative people are here in D.C.?

Mr. MARTINEZ. I believe I've got about 100.

Mr. KNOLLENBERG. 100? How many—any field people here? How many management and how many field?

Mr. MARTINEZ. I don't have that exact information with me. I could provide it for the record.

Mr. KNOLLENBERG. Could you get that for me? What percentage of your projects are contracted out to, to non-Federal workers?

Mr. MARTINEZ. I don't have that information here.

Mr. KNOLLENBERG. And again, if you don't have that information, it is available is it not?

Mr. MARTINEZ. Yes.

Mr. KNOLLENBERG. If you were to total both the 6,400 I think you said with your, with your contract employees, what would that figure out to?

Mr. MARTINEZ. We don't have that. But we can provide it to you.

Mr. KNOLLENBERG. Yes. It would seem to me that that information would be vital both historically too, not just for now, but history could give us some indication of what the growth within the particular agency has been. And then we can obviously—some growth may be necessary. Some is obviously. But some may not be, and we can compare that with prior years and also compare it with some of the other agencies.

We've found it difficult it seems from my perspective to get this kind of information. And obviously I don't expect you to have everything I ask for today. But it's the kind of thing when we ask the question of other departments, it seems that they don't know. This is not an admonishment. But I would tell you that the great bulk of the private sector companies have to know that. They have to know it daily. And if they don't know it, they don't know what their bottom line costs are going to be. And it comes out to fringe benefits and all the rest of it. So we would like that information so as to get a handle on the specifics of where we are today. Just kind of a balance sheet of where this agency, this department is.

And so that concludes my questions. I would like that information, however, as you promised. And I look forward to your sending it along.

Mr. Chairman, I yield back, and thank you very much.

[The information follows:]

BUREAU OF RECLAMATION WORKFORCE

In FY 1995, Reclamation utilized approximately 1,500 fewer full time equivalent (FTE) staff years than in FY 1993. The FY 1997 request reflects the utilization of an estimated 6,462 FEC, an increase of 141 over FY 1995. The increase is needed to adequately support projected increases in services that Reclamation provides on a reimbursable basis to other Federal agencies. Specifically, Reclamation provides payroll services to all bureaus in the Department of the Interior and to other Federal agencies, and operates Job Corps Centers for the Department of Labor.

The FY 1997 request includes approximately 100 management/administrative FTE in the Washington office and 5 regional/field FTE. The latter category consists of employees in the Regional Liaison Office who provide a direct link between the Regional Directors and the Commissioner's office, as well as with other Federal agencies in the Washington area and with Congressional staff.

Total FY 1997 FTE would be about 6,600 if contractor employees performing "operational" duties were included. Most contractor personnel paid by Reclamation funds work on contracts where the deliverable is a product such as a design or a constructed facility. Reclamation does not attempt to track the number of contractor employees working on such contracts.

TOTAL EMPLOYMENT OF THE INTERIOR DEPARTMENT

Secretary BABBITT. Mr. Chairman, with your leave I'd like to just——

Mr. MYERS. Sure.

Secretary BABBITT [continuing]. Make one observation. When I became Secretary of the Interior when this Administration came to town in 1993, the total employment at the Interior Department was slightly over 80,000. We have reduced that by 10% in the last 3 years. We have——

Mr. KNOLLENBERG. Is that total Federal—

Secretary BABBITT. That's total FTEs, Federal employees.

Mr. KNOLLENBERG. FTEs within the—

Secretary BABBITT [continuing]. In the Department.

Mr. KNOLLENBERG. Department.

Secretary BABBITT. We've reduced that by 10%. We have 8,000 fewer employees than we did 3 years ago. It has been a major and very difficult downsizing. That cut has been spread across every agency. In the case of the Bureau of Reclamation, we have 20%

fewer Federal employees than we had 3 years ago. That's a reduction of nearly 1,500 employees in this Bureau——

Mr. KNOLLENBERG. Contract employees?

Secretary BABBITT. Contract employees have declined as well. I can tell you that for sure.

Mr. KNOLLENBERG. And, and you're saying that that was a concerted effort?

Secretary BABBITT. No, that was with the cooperation of this Congress. We have done that across the entire Department. We've thinned out the headquarters. That 10% reduction probably translates into closer to a 25% reduction in the number of people in headquarters.

Mr. KNOLLENBERG. In terms of numbers, dollars, I would suspect that many of those people that did leave or were terminated or caused to leave, forced to leave, did have some sort of retirement or buy-out package.

Secretary BABBITT. Absolutely.

Mr. KNOLLENBERG. And that would of course have an influence on the cost. The number of those——

Secretary BABBITT. A near-term bump-up followed by long-term decline, that's correct.

Mr. KNOLLENBERG. The—when it comes to supervisory ratios, would you say that this downsizing resulted in less supervisory types——

Secretary BABBITT. Absolutely.

Mr. KNOLLENBERG [continuing]. And more hands-on people?

Secretary BABBITT. Without any question.

Mr. KNOLLENBERG. The ratio would reflect a lessening or a lower number of administrative people?

Secretary BABBITT. That's absolutely true. I can give you an example. In the case of the National Park Service where we have downsized by about 1,000 employees, they've actually increased the number of rangers in national parks. It's a result of thinning out both the managerial layers and the absolute numbers.

Mr. KNOLLENBERG. I appreciate that. And I look forward to the submission of your, your response. Thank you.

EVERGLADES RESTORATION

Mr. MYERS. Thank you, Joe. I was in Florida a few weeks ago and had coffee with some sugar growers. They were a little bit unhappy that they were paying for the cleanup of the Everglades, the restoration of the Everglades. What can you tell us about this?

Secretary BABBITT. Well, the Everglades in my judgment is an emerging success story on many fronts. I should have responded to Mr. Knollenberg in terms of interagency cooperation. We have an interagency group now working on the Everglades issues under the direction of a Colonel from the Corps of Engineers. If you had come to the Department's budget presentation last week, you would have seen a Colonel from the Corps of Engineers as part of the——

Mr. MYERS. They testified before us last week.

Secretary BABBITT. It's really coming together very nicely. The State of Florida, the legislature, the water management districts have been a partner in this process. Obviously there are some remaining unresolved issues, and you put your finger on perhaps the most contentious one. That is, what is the appropriate contribution by the sugar industry as a result of its use of land in the Everglades agricultural area. It is obviously a question that involves judgment calls. The sugar industry is in fact committed to pay out over the next 10 or 12 years approximately depending on how the project plays out—$200 to $300 million in costs for a water quality treatment of the runoff from the Everglades agricultural area.

It is the proposal of this Administration that, in addition to that, the sugar industry should be assessed a penny a pound which would yield approximately $35 million additional per year for the next 7 years. Overall, in terms of the various Federal agency contributions, contributions from the State of Florida, from the South Florida Water Management District and all other sources, that would mean that the sugar industry would be paying—through the existing commitment and the proposed penny a pound—somewhere in the nature of 7 to 9% of the total long-term restoration cost.

Mr. MYERS. Then how much is the State of Florida through taxation, other than the assessment on the sugar growers, who don't feel that they caused the problem but that they're being picked on now, how much will the State of Florida contribute? Can you give us, provide for the record if it's necessary, the breakdown of what they—is it too early to estimate?

Secretary BABBITT. No, I can give it to you. Let me give some rough figures, and I'll be happy to follow up with something. The 7-year total for all of the components of this restoration is estimated to be about $1.5 billion. As to the Florida local governments and the State, the cost shares differ from segment to segment, but the total Florida share is going to be pretty close to 50% of that. It is a really dramatic commitment which comes at several different layers—from State bonding capacity and general revenue funds, from highway tolls across a couple of the roads—the "Alligator Alley" and others and from property tax assessments by the South Florida Water Management District.

I've indicated that the sugar share would be about 7 or 8%. The balance of it would come from various Federal sources. That's very approximate, and I will follow it up for the record.

[The information follows:]

COSTS OF EVERGLADES RESTORATION

The total estimated cost of ongoing efforts to restore the Everglades and the South Florida ecosystem is about $2 billion, of which the Federal share is about $700 million, or 35 percent. The State of Florida and local government entities are expected to provide about $1 billion, and the sugar industry is expected to provide about $250 million.

In addition, the Administration is proposing the creation of an Everglades Restoration Fund that would be funded by direct appropriations of $100 million per year over the next four years, and by an increase in the marketing assessment for Florida sugar producers which would yield $35 million per year for seven years. This proposal would provide a total of $645 million in additional funds for Federal and non-Federal land acquisition and related ecosystem restoration projects.

Mr. MYERS. It looks like a very expensive project. The Corps presented what their share is going to be.

Secretary BABBITT. It is indeed. It is an unprecedented effort at restoration. I would make just one point and reiterate that is that this effort has enormous importance for all of Florida. I mean it extends all the way from Orlando clear down to Key West. And it has an unprecedented up-front and continuing commitment from the people of Florida. We talk traditionally in Corps of Engineer projects and in Reclamation projects of cost shares that extended across the entire project that are a relatively small percentage. And here we have a project in which the people of Florida are contributing 50% in terms of the total costs of the project.

COMPLETION OF CENTRAL UTAH PROJECT

Mr. MYERS. Madam Secretary, I think it—I'm confused about when the Central Utah project is going to be completed. I think last year you said 2003. Then there's someplace I read 2005. When is the date of completion for, for UP?

Ms. BENEKE. Well, I've been advised it's 2003.

Mr. MYERS. The budget states it is to be completed by September 2005. That's—are you—you feel it was 2003 then. OK.

Ms. BENEKE. I can elaborate on that discrepancy if you'd like.

Mr. MYERS. Is it on schedule?

Ms. BENEKE. Yes, we think it is.

Mr. Johnston. Yes.

Mr. MYERS. State of Utah is—it's fulfilled its obligations towards this?

Mr. Johnston. They are.

Mr. MYERS. All the local government and—no, no problems with it then.

Mr. Johnston. Not at the present time.

Mr. MYERS. Yeah. Good to hear one of them like that anyway. Well, I can't be too critical.

ENDANGERED SPECIES BUDGET

Mr. Commissioner, I'm always concerned about how much of our effort is directed towards endangered species. This Committee has too has had a bad experience with the snail darter and several others. How much of your budget actually goes towards the preservation of the Endangered Species Act? Conservation and recovery?

Mr. MARTINEZ. $30 plus million. We'll provide a breakdown for you.

Mr. MYERS. Thirty million this——

Mr. MARTINEZ. Thirty plus.

Mr. MYERS. Thirty—in the 1997 request?

Mr. MARTINEZ. 1997 request.

Mr. MYERS. Lot of money in that for——

Mr. MARTINEZ. Yes.

Mr. MYERS [continuing]. Something nobody ever sees in most cases. When they do they can't identify one. We had a—I go back to the snail darter, before you people came on board. But we were—Mr. Berill and I were at the Supreme Court, and they had this expert from one of the universities in the south. And they had five bottles of darters, and they asked for the expert—what do they call him, a zoologist? He picked out the wrong one. He picked the darter but not the snail darter. And that's how endangered it really is you see. So I'm always concerned about how much money we're spending.

I know. I'm not much of an environmentalist. Ralph Nader tells me it all the time, and at least he's talking. Usually, he doesn't speak to me, but—and it's mutual.

CENTRAL ARIZONA PROJECT

But the CAP. I think last year it was 81% complete, now this year 79%. We took a step backward, didn't we? What can you—what's caused that to step back? Mr. Commissioner, you weren't here last year, of course, to give that testimony. Did you just correct the books that——

Secretary BABBITT. Mr. Chairman——

Mr. MYERS. Is it just—they're not moving very fast——

Secretary BABBITT. The Central Arizona Project is a moving target. They're always adding and subtracting things so there is a little variation. The CAP in terms of the infrastructure and the main delivery system, is essentially complete. There are three issues outstanding, and they're very complicated. One is the siphon repairs. You been through that? That is——

Mr. MYERS. That's in litigation?

Secretary BABBITT. It is the mother of all lawsuits. I don't know whether it will be resolved in my lifetime.

Mr. MYERS. Well, I don't know, I think Animas La-Plata is catching up.

Secretary BABBITT. The second piece is the internal debate in the city of Tucson about how the water is to be used. That affects the Bureau's judgments about how much terminal storage is necessary in the system. We have deferred appropriation requests to construct for the construction of the terminal storage because how that is configured is a function of how Tucson chooses to use the water. If they use it directly into a water system, then you get a high degree of reliability which justifies terminal storage. If they are going to use it for groundwater recharge, it is not so much the case. Then there is the Indian distribution systems which are a major commitment that I think we need to maintain.

Mr. MYERS. Well, I have some series of questions here. Most of us have some series of questions we will provide for the record. You've been here a long time now. We apologize for keeping you so long. But these are important programs for the country.

Commissioner, your biography will be placed in the record, as will yours, Madam Secretary. Ms. Beneke, are you any relation to Tex?

Ms. BENEKE. I'm always asked that, and I wish I could say yes. Some long, long lost uncle undoubtedly.

Mr. MYERS. When I was in college I, he was—my fraternity had—that dates me somewhat doesn't it. But he entertained us a number of times for we had—orchid was our flower. We had the Orchid Ball. And we had Tex Beneke a couple times to come.

Ms. BENEKE. Good.

Mr. MYERS. But we have the series of questions we will provide for the record.

[The information follows:]

Questions submitted by the Honorable John Myers

CUSTOMER INPUT

Mr. Myers. Mr. Commissioner, you indicate that you have been seeking customer input and asking whether some of the work Reclamation now does could be accomplished as well or better without Federal involvement. What have the results of that effort thus far?

Mr. Martinez. In developing policy guidance to initiate Reclamation's Title Transfer initiative, which is part of Phase II of the National Performance Review, we conducted brainstorming sessions with many of our beneficiaries and stakeholders to help identify the important policy issues as well as to scope out potential opportunities for mutual gain. At those and subsequent meetings, our customers have shown an interest in facilities transfer. As a result, Reclamation has begun discussions, on a case-by-case basis, with non-Federal entities who are interested in taking title to certain Reclamation facilities.

In addition to negotiating title transfer with respect to appropriate facilities, we are also transferring the operations and maintenance responsibilities of certain facilities to non-Federal entities. Of the 631 facilities built and owned by Reclamation, O&M responsibility has been transferred on 398. While transferring O&M has been a long standing practice of Reclamation, we are also pursuing additional O&M transfers concurrent with our Title Transfer initiative.

While these and other efforts are being pursued, I have no doubt that Reclamation will continue to be involved in facilitating the resolution of complex Western water problems.

TITLE TRANSFER NEGOTIATIONS

Mr. Myers. You state that active negotiations for transferring title of Reclamation facilities to non-Federal interests are underway on a number of projects. Please provide for the record a list of those projects.

Mr. Martinez. Since August 1995, when Reclamation announced its Title Transfer initiative, there has been interest expressed in title transfer for approximately 40 projects or units of projects. There are currently serious negotiations underway on 10 projects, or units of projects.

Of the ten that are involved in serious discussion, each is at a different stage of negotiation.

The 10 projects are:

1) San Diego Aqueduct - CA
2) Boulder City Pipeline - NV
3) Contra Costa Canal - CA
4) Clear Creek Tunnel - CA
5) Cow Creek Unit - Bella Vista Conduit - CA

6) Lower Yellowstone - MT
7) Boise Project - ID
8) Minidoka Project (includes four units)- ID
9) Dickinson Dam and Reservoir - ND
10) Minidoka Project - ID

ONGOING CONSTRUCTION PROJECTS

Mr. Myers. You indicate that the amount requested for the Construction Program in FY 1997 would keep "most" ongoing projects moving towards completion. Which projects would not be kept moving towards completion under the budget request?

Mr. Martinez. Reclamation has worked hard to allocate available funds to projects that are thoroughly justified and able to expend available funds. Some projects and programs are not funded at full capability due to funding constraints, and there is no funding request in FY 1997 for some projects due to programmatic reasons. The latter category includes the Lower Gunnison Basin and Paradox Valley Units of the Colorado River Basin Salinity Control Project for which remaining construction is deferred in favor of the more cost-effective Basinwide salinity control program; and the Northwest Texas Wastewater Reuse and Port Hueneme Brackish Water Reclamation projects for which funds were provided in FY 1996 by Congressional write-ins.

Mr. Myers. Have you identified any projects which you believe would be better completed by non-Federal entities? If so, have you been able to negotiate agreements with the non-Federal interests for completion of those projects?

Mr. Martinez. I have provided the following insert for the record:

Completion of Reclamation Projects by Non-Federal Entities

Title transfer and project completion by non-Federal entities are matters being seriously considered by Reclamation. It may be helpful to classify the different situations separately.

A) Projects for which responsibility for completion has already been turned over to non-Federal parties:

- Central Utah Project - Reclamation's portion of this project is nearing completion.

B) Projects under construction by non-Federal entities which are being completed under Federal oversight and guidance:

- Mni Wiconi -
  With concurrence of the Rosebud Sioux, Lower Brule, and Oglala Sioux tribal council, we have entered into agreements with non-Federal entities for planning, design, and construction.
- Shoshone R&B Project -
  Completing in FY 1997 under agreements with the Shoshone, Deaver, Willwood, and Heart Mountain irrigation districts.
- Lake Meredith Salinity Control Project - Executed agreement with Canadian River Authority and Texas Water Development Board for Reclamation design and contract award. Non-Federal entities pay construction costs.
- Grand Valley and Lower Gunnison Basin Units, CRBSCP Title II -
  Executed construction cooperative agreements with four non-Federal entities to complete. This method of construction is being used as a model for the new, Basin wide Program authorized by P.L. 104-20.
- Dallas Creek, Section 5 -
  Negotiating construction cooperative agreement for non-Federal repair of the dam outlet works at Ridgway Dam.
- Dolores Project -
  Agreements for remaining construction have been negotiated with the Dolores Water Conservancy District, the Montezuma Valley Irrigation Company, and the Ute Mountain Ute Tribe.
- Garrison Diversion Unit, Municipal Rural and Industrial Water -
  Executed agreement with State of North Dakota for State design and construction of MR&I water systems. Federal oversight of preconstruction and construction activities.

C) Projects that have limited Federal oversight but receive Federal funds:

• Los Angeles Area Water Reclamation and Reuse Project -	Agreements in place.
• San Diego Area Water Reclamation Program -	Agreements in place.
• San Gabriel Basin Project -	Agreements in place.
• Tres Rios Wetlands Project -	Agreements in place.
• San Jose Area Water Reclamation and Reuse -	Agreements in place.
• Mid-Dakota Project -	Agreements in place.

D) Projects for which there is no current plan for Reclamation involvement and it is assumed completion would be carried out by non-Federal entities:

- Animas-LaPlata Project, Phase II - Agreements made in 1986 for Phase II.

E) Other Projects with significant non-Federal involvement and cost-sharing:

- Endangered Species Recovery Implementation Program -
  Various agreements in place, and others being negotiated.
- Recreation Management (P.L.102-575, Title 28) -

Various agreements made in various states to cost-share, construct, and/or operate facilities.

- Indian Programs under Self-Governance Agreements:
  - Salt River Pima-Maricopa Indian Community - Agreements in place.
  - Gila River Indian Community - Agreements in place.
- CAP Miscellaneous Deficiency items to be corrected by CAWCD under their Operating Agreement with Reclamation -
  - Agreements were made, but funding deferred until CAP financial issues with CAWCD are resolved.
- Applied Science and Technology -
  - Portions conducted by non-Federal research experts with cost-sharing, to take advantage of specific skills and knowledge not available within the Federal government. Research efforts widely coordinated with other Federal and non-Federal entities.

Mr. Myers. How much is included in the budget request for activities associated with endangered species conservation and recovery? Please provide a breakdown of those costs by project.

Mr. Martinez. There is about $30 million in the FY 1997 budget request specifically for this work. The request for the Columbia / Snake River Salmon Recovery Project is $15 million. Another $14.5 million is requested for the Endangered Species Conservation and Recovery programs in four regions as follows: Pacific Northwest, $1.1 million; Lower Colorado, $3 million; Upper Colorado, $7.9 million; and Great Plains, $2.5 million.

In addition, there are funds for activities associated with endangered species conservation and recovery in the request for other projects, but in amounts that would be difficult to quantify. For example, funds requested for the Central Valley Project in the Construction and Operation and Maintenance accounts and in the Restoration Fund are to be used for fish and wildlife purposes, but we can not identify with any accuracy the specific portion of these funds that is to be used for the conservation and recovery of endangered species.

Mr. Myers. Are all the projects included in the FY 1997 budget request authorized?

Mr. Martinez. Yes, all Construction projects are authorized. Legislation is required, however, to extend the expiration date beyond October 1, 1996 for the Trinity River Restoration Program, Central Valley Project, to allow for proposed work.

Mr. Myers. Can all the work proposed in the FY 1997 budget request be performed under existing appropriations ceilings?

Mr. Martinez. Yes, the FY 1997 work proposed can be accomplished under existing ceilings.

Mr. Myers. You indicate that the Central Arizona Project and the Dolores and Dallas Creek Participating Projects of the Colorado River Storage Project exceed their appropriations ceilings when partitioned by unit. Is legislation needed before these projects can be completed as authorized?

Mr. Martinez. We do not believe legislation is needed before Dallas Creek and Dolores can be completed as authorized.

The Colorado River Basin Project Act authorized construction of the Central Arizona Project and the Dixie Project. Legislation would be required to increase the appropriation ceiling if construction were to be proposed on those divisions not now contemplated for construction. However, the funding proposed in the FY 1997 budget request and the resulting future year commitments would be within the existing project ceiling. The Upper Gila, Middle Gila and Drainage Divisions cannot be built without additional appropriations authority.

Please provide a breakdown by project of the $50 million included in the budget request for "new activities".

Mr. Martinez. The $50 million figure that was cited in the Construction Program General Statement is an estimate of the funds that will be available for new work on all projects, including ongoing projects. The vast majority of Reclamation's "new activities" consists of FY 1997 contract awards, acquisitions, procurements, or other new work on existing, ongoing projects. Within that number is $7 million for the Southern Arizona Water Rights Settlement Act -- which is not a new program to Reclamation -- but had been requested as part of the Bureau of Indian Affairs budget in the past few years. About $4.4 million is budgeted for an Efficiency Incentives Program to accelerate existing water conservation assistance efforts and fulfill Reclamation's responsibility under Section 210(a) of the Reclamation Reform Act of 1982 to encourage water conservation on Federal water projects. In FY 1997, $400,000 is requested for the Improved River Basin Control project under the Applied Science and Technology program. There is another $2.5 million requested for the Platte River Recovery Implementation Program, which would be used to fund conservation, research, and monitoring under a Basin wide program being developed by the States of Nebraska, Colorado, and Wyoming, and the Department.

CENTRAL ARIZONA PROJECT

Mr. Myers. Last year you reported that the Central Arizona Project was 81% complete. This year you indicate that it is 79% complete. Please explain how the percent complete decreased?

Mr. Martinez. The total estimated cost of the project increased by just under $207 million. The increase was primarily the result of increased estimates on the Indian Distribution Division which is moving from the feasibility stage to the preconstruction and construction stages. Other significant cost increases during the last year were associated with

Tucson Reliability and the Regulatory Storage Division. Since the increase in the total estimated cost of the project was greater than the costs for work completed with FY 1995 funds, the percentage of project complete decreased.

Mr. Myers. You indicate that the initiation of construction of any Central Arizona Project facility that will increase the repayment obligation relative to the claimed $1,819.5 million ceiling has been deferred until the resolution of the repayment contract issues. What facilities are impacted by that decision?

Mr. Martinez. Initiation of construction has been delayed for all remaining construction activities that add to the Central Arizona Water Conservation District's (CAWCD) repayment obligation except for those considered critical to the operation of the water system. This includes most construction completion and deficiency item work, except those that may adversely affect public health and safety, as identified in the notice of completion. The remaining siphon repairs and replacements, the Havasu Pumping Plant impeller investigations, the completion of the cathodic protection program, and several smaller items are included in this category of facilities. Reclamation does not intend to request construction funds for the delayed deficiency work until the repayment contract issues are resolved.

Mr. Myers. What is the current status of the Central Arizona Project repayment issue?

Mr. Martinez. The Central Arizona Water Conservation District failed to make two payments (January 1995 and 1996) required under the terms of the Master Repayment Contract. The first payment due on January 15, 1994 was covered by a credit given under an agreement between the U.S. and the District to fund the acquisition of water for the Fort McDowell Indian Community water rights settlement. The second payment amount due on January 15, 1995 was $54,100,000. A partial payment of $34,331,706 was made. The Assistant Secretary agreed to accept this payment and waive penalties while negotiations on a mutual settlement were underway. On February 2, 1996, Reclamation officially notified CAWCD, consistent with the agreement with the Assistant Secretary, that negotiations had ended and penalties under the contract would begin in 30 days. The third payment amount due on January 15, 1996 was calculated at $67,231,706. To date no payment has been received. Total payment due the United States for the 1995 unpaid amount and the 1996 amount is $87,000,000.

Penalties as specified in Article 9.10(a) of the Master Repayment Contract are being assessed at one percent per month. The resulting penalty is $870,000 per month which, based on a 31 day month, is $28,065 per day. On March 4, 1996 the first overdue notices were sent. Article 9.10(b) of the Master Repayment Contract requires that if the contractor is in arrearage more than twelve months, then water deliveries are terminated. Reclamation is not proposing, at this time, to enforce this article during the litigation process.

CAWCD filed suit against the United States in July 10, 1995. The United States filed a counter suit on August 18, 1995. On September 20, 1995 the complaints were consolidated in

U.S. District Court. Both parties are presently engaged in the discovery process including interrogatories and reproduction of documents.

Mr. Myers. The justification sheets state that as the requirement for agricultural water on the Central Arizona Project has decreased, an increasing number of applicants have requested water service subcontracts for M&I uses, and that as these contracts are signed, municipalities will be seeking, through various authorities, to participate with the government in funding work to connect their water systems to the CAP. What authorities currently exist for the Federal government to participate is such work?

Mr. Martinez. Section 309(b), Appropriation Authorization, of the Colorado River Basin Project Act, Public Law 90-537 as amended by Public Law 97-373, authorized $100 million to construct CAP distribution and drainage facilities for non-Indian lands. Public Law 97-373 subsequently authorized the $100 million to be adjusted to reflect ordinary fluctuations in construction costs and placed a 20% cost-sharing requirement on the program. Reclamation has concluded that this authority applies to both irrigation and municipal and industrial water distribution systems. Repayment contracts are required for any funds that are provided under this program. Total Federal cost to date has been $242.5 million. The current available appropriation ceiling remaining for this program is approximately $105 million.

Mr. Myers. Have you participated in any such work?

Mr. Martinez. Only one M&I system has been constructed to date under this authority, the Chaparral City Water Company. In addition, nine irrigation distribution systems have been built. Due to the difficulty irrigation districts are having meeting their repayment obligations under this program, Reclamation has ceased to accept any further requests until these financial conditions are resolved. Therefore, Reclamation has not requested appropriations for this program in FY 1997.

Mr. Myers. What was the final Contracting Officer's Decision regarding the CAP siphon problem that was rendered on September 28, 1995?

Mr. Martinez. There were two Contracting Officer's Decisions issued to Peter Kiewit Sons' Company on September 28, 1995, relative to the CAP siphons. These are Modification No.006 to Contract No. 14-06-D-7689/DC-7120 for Agua Fria River, New River, and Salt River Siphons which demanded payment in the amount of $32,114,382 and Modification No. 006 to Contract No. 8-07-DC-07304/DC-7304 for Centennial Wash, Jackrabbit Wash and Hassayampa River Siphons which demanded payment in the amount of $7,390,544. Both modifications provided a Final Decision of the Contracting Officer concluding that there were latent defects in materials and workmanship. Therefore, the Decisions relative to the siphon problems demanded a total payment in the amount of $39,504,926.

Mr. Myers. What is the status of your claim against the siphon contractor?

Mr. Martinez. The appellant, Kiewit, appealed the Decisions to the Interior Board of Contract Appeals, and filed a Complaint on December 13, 1995; Reclamation responded to the Complaint on January 26, 1996. A Joint Status Report was submitted by the parties to the IBCA on February 23, 1996. The IBCA recognized that the parties did not expect to be ready for a hearing prior to October 1997, and that they contemplated several months of discovery. Discovery is currently in progress, including the marshaling of approximately 300,000 document entries by Reclamation, which are subject to disclosure. The IBCA declined to set a hearing schedule, pending later review of the parties' discovery progress and the status of any dispositive motions, which appellant has stated it likely will file.

Mr. Myers. What is the status of the siphon repairs?

Mr. Martinez. To date, two of the six Hayden-Rhodes Aqueduct Siphons have been replaced. They are the Salt River Siphon and the New River Siphon. Because of the disagreement with the Central Arizona Water Conservation District regarding repayment of the project, the remaining siphon work has been delayed by Reclamation pending resolution of the repayment issues. CAWCD requested permission to go forward with the replacement of the Agua Fria Siphon and the repair of the Centennial Siphon on its own. In a letter dated December 28, 1995, Reclamation granted permission with provisions that CAWCD bear sole responsibility for the associated financial cost; that the United States would retain title to newly constructed or modified government property; and that complete access be given to Reclamation to ensure long term viability of the modified aqueduct system.

CAWCD is billing Reclamation for the siphon repair costs as deficiency and completion work. Reclamation is not recognizing these bills as valid obligations because CAWCD, by proceeding with construction, accepted the provisions of the December letter. In addition, any reimbursement to CAWCD by Reclamation would increase CAWCD's repayment obligation beyond its repayment ceiling. At this time, no work is planned by either party on the remaining two siphons.

Mr. Myers. Why have preconstruction and construction activities associated with the Central Arizona Project Drainage System been indefinitely deferred?

Mr. Martinez. Construction of drainage facilities associated with the Central Arizona Project has not been started because no drainage problems have developed to date. Drainage facilities were authorized to remove subsurface CAP water which could accumulate in the plant root zone as a result of prolonged water deliveries. Should a drainage problem develop as a result of long-term deliveries of water in central Arizona, consideration would be given to requesting funds for work on drainage activities.

Mr. Myers. Please explain the "traveling museum exhibits" being funded in connection with work at Roosevelt Dam.

Mr. Martinez. The Roosevelt traveling museum exhibit was devised to partially meet Reclamation's commitments to mitigate impacts to significant archaeological sites that were affected by modifications to Theodore Roosevelt Dam. These commitments include public education components. The program is authorized by the National Historic Preservation Act and commitments made between Reclamation, the Advisory Council on Historic Preservation, and the Arizona State Historic Preservation Office. The intent of the program is to develop an exhibit that will be displayed by various museums in their changing galleries. It is anticipated that the exhibits will be available for three to six months at each museum.

The exhibit focuses on the relevancy between the past and present as expressed in the relationship between people and water in the Sonoran Desert. The subject is the prehistoric Salado culture, and the exhibit will incorporate artifactual material recovered during the mitigative archaeological site excavations. A secondary theme of the exhibit is archaeological site preservation and protection, with emphasis placed on the roles of the public and the Federal governments as stewards of the past.

Mr. Myers. What is the FY 1997 cost of that work?

Mr. Martinez. FY 1997 costs are programmed at $100,000. These monies will be spent in final exhibit design and fabrication.

Mr. Myers. In FY 1996, $5,850,000 was provided for work related to Tucson Terminal Storage, including $3,000,000 to acquire lands for the terminal storage site. How are those funds being utilized?

Mr. Martinez. The City of Tucson, by a voter-passed initiative, is precluded from taking direct delivery of Central Arizona Project water for municipal and industrial purposes for five years. As a result Reclamation has deferred construction on Tucson reliability for four years. Of the $5,855,000 identified for Tucson Terminal Storage in the FY 1996 budget, $3.0 million was absorbed in underfinancing and $2.3 million was redirected to other CAP features.

Mr. Myers. What is the status of work on Tucson Terminal Storage?

Mr. Martinez. The City is currently making efforts to resume direct deliveries of Central Arizona Project water for other than M&I use. Funds in the FY 1997 budget request will be used for working with the City of Tucson on its plans for direct delivery of CAP water, working with the Tohono O'odham Nation to resolve its reliability and other outstanding issues, and gaining conceptual agreement with the Fish and Wildlife Service on endangered species issues.

Mr. Myers. Are funds included in the budget request for activities related to the Reasonable and Prudent Alternative in the 1994 Jeopardy Opinion for the Central Arizona Project? If so, how much, and where are the funds budgeted?

Mr. Martinez. Yes, funds in the amount of $3,595,000 are requested for non-native fish eradication, native fish conservation, construction of Aravaipa and San Pedro fish barriers, and fish monitoring. These activities are identified under the Native Fish Protection programs within the Other Project Costs section of the Central Arizona Project request.

Mr. Myers. Are funds included in the budget request for activities related to reopening consultation on Central Arizona Project operations based on the new information provided by the Central Arizona Water Conservation District? If so, how much, and where are the funds budgeted?

Mr. Martinez. No funds are included. Reclamation and Fish and Wildlife Service do not plan to reopen consultation. However, the budget request does include funds for Reclamation, the CAWCD and FWS to cooperatively investigate ways to reduce the costs of the reasonable and prudent actions required to avoid a jeopardy opinion. Funds in the amount of $50,000 are part of the Native Fish Protection program within the Other Project Cost section of the Central Arizona Project for Reclamation's share of these costs.

Mr. Myers. Are funds included in the budget request for a Biological Assessment of proposed Central Arizona Project water uses in the Tucson area? If so, how much, and where are the funds budgeted?

Mr. Martinez. Yes, funds in the amount of $1,000,000 are included in the budget for the Biological Assessment under Santa Cruz Fish in Native Fish Protection program of the Other Project Costs section of the Central Arizona Project request.

Mr. Myers. Are funds included in the budget request for environmental assessments of transfers of Central Arizona Project water service contracts subcontracts from one non-Indian user to another? If so, how much?

Mr. Martinez. No funds are requested. Environmental assessments for transfer of water contracts between Central Arizona Project non-Indian users is an operation and maintenance function of the project, in compliance with Reclamation policy for completed work. The cost to prepare Environmental Assessments is borne by the entities who will benefit from such transfers. CAP O&M is funded from project revenues as directed by the authorizing Colorado River Basin Project Act, Public Law 90-537, Section 403(d) which established the Lower Colorado River Basin Development Fund. Accordingly, no appropriations for the Environmental Assessments are requested in the FY 1997 budget.

ENDANGERED SPECIES CONSERVATION / RECOVERY PROGRAM

Mr. Myers. Are funds included in the budget request for completion of the Biological Assessment on operation of Lower Colorado River dams? If so, how much and where are the funds budgeted?

Mr. Martinez. Yes, they are included. We have allocated $200,000 in both FY 1996 and FY 1997 to do the Biological Assessment. Currently, Biological Assessment work is being performed under the Endangered Species Conservation and Recovery Program within the Construction Program. The Biological Assessment work will evaluate the potential effects of river operations on endangered species and critical habitats. A Memorandum of Agreement between the Department of the Interior and the Lower Basin States of Arizona, California, and Nevada was entered to develop a long-term program for conservation of species along the Lower Colorado River. The Biological Assessment will determine the extent of endangered species efforts needed on the Lower Colorado River.

FOLSOM DAM SPILLWAY GATE REPAIRS

Mr. Myers. Please provide the committee with a status report on the ongoing repair work at Folsom Dam in California. Will the funds requested in FY 1997 be sufficient to complete the work?

Mr. Martinez. To date Reclamation has executed three contracts: (1) To provide stoplogs to control the reservoir water after the failure of Gate No. 3; (2) removal of Gate No. 3; and (3) repair and modification of the seven existing gates to allow for flood operations in the winter of 1995-96. The third contract, completed in December 1995, required extensive reinforcement of the seven existing gates, but did not complete required work to bring all gates back to full operational status without restrictions. The designs and specifications for the fourth contract, which is to complete the repairs and modifications to allow unrestricted operations, and to replace the failed Gate No. 3, have been completed and issued for bids. The fourth contract is expected to be awarded in April 1996, with completion scheduled for the spring of 1997.

After the existing gates undergo special strain and vibration testing under full reservoir loads, which should be in June, the Forensic Report investigating the causes of the gate failure will be completed. Other required work associated with the gate failure, such as repair of the damaged spillway, will be initiated later in FY 1997. The funding request of $11 million for FY 1997 should be sufficient, assuming an additional $9 million becomes available in FY 1996 through a supplemental appropriation or reprogramming.

AMERICAN RIVER WATER RESOURCES INVESTIGATION

Mr. Myers. Has the feasibility-level planning study of multipurpose alternative sources of water and power development in the American River Basin, California, been completed? What are the recommendations of that study?

Mr. Martinez. The draft Planning Report with an accompanying Draft EIR/EIS on the American River Water Resources Investigation was released on February 2, 1996. The draft report does not contain recommendations. A 90-day public and agency review of the document is underway, with a closing date of May 3, 1996. Comments gathered through the review process will be used to revise the report and formulate recommendations. The final report, including recommendations, is expected to be released in July.

CONTRA COSTA CANAL

Mr. Myers. In FY 1996, $80,000 was provided under the Delta Division, Central Valley Project, for work in connection with fish screening requirements at the Contra Costa Canal intake at Rock Slough. What is the status of that work?

Mr. Martinez. Reclamation and the Contra Costa Water District are currently in the third year of the 3-year monitoring study that will end August 31, 1996. The purpose of the study is to determine whether or not winter-run Chinook salmon, Delta smelt, and other special status species are being entrained into the Contra Costa Canal and to what extent. Funding for the monitoring is cost shared equally by Reclamation and Contra Costa Water District (District).

In addition, the District and Reclamation have begun planning and predesign activities needed for the installation of state-of-the-art fish screens at the District's Rock Slough diversion to comply with the Los Vaqueros Biological Opinion for Delta Smelt issued by the U.S. Fish and Wildlife Service in September 1993. Reclamation is currently preparing a Phase I predesign planning document which will explore various screening opportunities for the Rock Slough Intake. This report, to be completed by June 1996, will provide predesign feasibility level alternatives for approximately six different fish screens or barriers, and will summarize pertinent information on local hydraulics of the existing facilities, water quality, operational activities, debris problems, and fish resources. A Phase II report, to be completed by November 1996, will refine design data, costs, and include preliminary schedules for two or three of the best fish screen options being considered. Coordination has already begun with involved fishery agencies with the selection of technical and coordination teams underway.

A program management planning document will be prepared which will identify other program elements and tasks including environmental documentation and permit requirements, public involvement and stakeholder coordination, development of construction schedules, funding requirements, fishery evaluation studies, and other activities which will be required prior to installation of screening facilities.

Mr. Myers. Does the FY 1997 budget request include funds to continue the work?

Mr. Martinez. The FY 1997 budget request includes $250,000 to continue planning and initiate design activities.

Mr. Myers. What is the current schedule for initiation of construction of the fish screens and the current estimate of total project costs?

Mr. Martinez. Construction is currently scheduled to be initiated in FY 1998. Total project costs have been estimated at over $5 million.

DELTA SUPPORT - BAY-DELTA

Mr. Myers. What is the difference between the work done under the Delta Support Program and the Bay-Delta Oversight program. Please provide a detailed breakdown of the work to be performed in FY 1997 under both of these programs.

Mr. Martinez. The San Francisco Bay/Sacramento-San Joaquin Delta, Bay-Delta is a unique estuary system. The system serves many purposes, including extensive agriculture, urban and industrial water supply, international shipping, habitat for a variety of sensitive species, and recreational activities; and is the hub for transporting water from the northern to the southern part of the state, a several billion dollar economy. For the past 20 years, various stakeholders have been engaged in contentious discussions and litigation over management of this sensitive ecosystem. All stakeholders agree that there are two components necessary to effectively manage this system: first, technical information to better understand the biology and hydrodynamics within the estuary, and second, policy decisions to allocate the resources responsibly.

The Delta Support Program provides the technical information, and the Bay-Delta Oversight Program is working to develop the policies for long-term management.

The Delta Support Program funds Reclamation staff and other members of the Interagency Ecological Program. The IEP is composed of six Federal and three State agencies who are combining resources to conduct various field monitoring efforts in the San Francisco Bay-Delta estuary. The majority of monitoring efforts and technical studies are required by the State of California and the Federal Government as a condition of Reclamation's water export permit or as a requirement of the Endangered Species Act. Delta Support funds approximately 30 percent of the following IEP efforts: compliance, water quality and zooplankton monitoring, ESA and resident fisheries monitoring, fish facility improvement studies, hydrodynamic field and modeling studies, Suisun Marsh monitoring, and technical studies to better understand the fragile ecosystem.

The Bay-Delta Oversight Program resulted from the historic Bay-Delta Framework Agreement, which was negotiated and signed by various State and Federal entities in June 1994. As established by the Framework Agreement, State and Federal agencies, known as CALFED, are working together to: (1) Protect Bay-Delta water quality standards; (2) coordinate operation of the State Water project and CVP; and (3) develop a long-term Bay-Delta solution. The Bay-Delta Oversight Program supports the policy efforts of CALFED. Efforts planned for FY 1997 include: CALFED operations--coordinated operation of State and Federal water projects; development of a long-term programmatic environmental document; reconnaissance/prefeasibility planning and analysis to further refine actions that comprise the alternatives in the Programmatic Environmental Impact Statement (EIS)/Environmental Impact Report (EIR); and extensive public outreach to Bay-Delta Advisory Council (BDAC), CALFED agencies, and the general public.

COMPREHENSIVE ASSESSMENT/MONITORING PROGRAM

Mr. Myers. As a result of the work done under the Comprehensive Assessment/Monitoring Program of Central Valley Project, have you been able to determine the effectiveness of various fish and wildlife restoration activities that have been accomplished?

Mr. Martinez. The Comprehensive Assessment and Monitoring Program (CAMP) is still under development. The Concept Plan has been completed and the Coordinated Implementation Plan is scheduled for completion this summer. We expect CAMP will be fully implemented in FY 1997. In the interim, individual CVPIA actions and activities are being subjected to short-term, site-specific assessments of effectiveness. Although long-term effectiveness is impossible to judge at this stage, it appears that the CVPIA actions we have implemented to date have been effective in accomplishing their intended objectives. Of particular note are the gravel replenishment efforts, the completed screening projects, the refuge water supply program, the management and use of the dedicated 800,000 acre-feet of CVP yield, and the supplemental water acquisition program.

ANADROMOUS FISH PROGRAM

Mr. Myers. What work will be undertaken in FY 1997 under the Anadromous Fish Program of the Central Valley Project?

Mr. Martinez. The annual work plan for FY 1997 has not been finalized. However, Interior agencies are working with appropriate stakeholders to identify actions that may be implemented in FY 1997. These include the construction of fish ladders and screens at diversions on Butte Creek and other tributary streams, habitat and passage improvement on Clear and Battle Creeks and other Sacramento River tributaries, further restoration of spawning habitat on the Stanislaus River, correction of predation problems resulting from the presence of off-channel ponds along San Joaquin River tributaries. Other actions will result from coordination with existing and future watershed conservancies and stream management organizations such as the Mill Creek Conservancy, the Tuolumne River Technical Advisory Committee, and the fisheries subcommittee of the San Joaquin River Management Plan.

SALMON STAMP PROGRAM

Mr. Myers. What work is being accomplished in FY 1996 under the Salmon Stamp Program?

Mr. Martinez. In FY 1996, specific fish restoration program projects include repairs to fish ladders, restoration in river channels, watershed restorations, and funding of environmental compliance activities.

COLUSA BASIN

Mr. Myers. What is the status of the Colusa Basin Drainage District Management project?

Mr. Martinez. The Colusa Basin Drainage District has developed a three-phase program through Integrated Resource Management. To date, the first and second phases are complete and together Reclamation and the District are implementing the third. The program's goals are to: (1) Preserve and enhance agricultural production; (2) capture surface/storm water for conservation; (3) provide flood and drainage water protection; (4) assist in ground-water recharge; (5) improve opportunities for restoration of wetland and riparian habitats; and (6) improve water quality.

Phase I, completed in December 1993, outlined the overall initial plan. Phase II, completed in November 1994, was a reconnaissance level study to determine if the goals could be met in a conjunctive use manner and to recommend and prioritize areas for potential projects. In Phase III, currently in progress, proposed sites were selected along with the potential costs and benefits associated with their design and implementation. Phase III is partially complete with the landowner vote, in November 1995, passing the Plan and the proposed projects. Four projects were selected for the initial Plan including: (1) Funks Creek Golden Gate Dam and Reservoir; (2) Wilson Creek Dam and Reservoir; (3) Ground-Water Recharge - County Road 27, Glenn County; and (4) the Colusa Basin Drain Management Program. We are continuing work on preliminary design and feasibility studies of the four projects.

SACRAMENTO RIVER DIVISION

Mr. Myers. In FY 1996, an additional $5,665,000 was provided for the Sacramento River Division of the Central Valley Project. How are those funds being utilized?

Mr. Martinez. The planned program for FY 1996 for the Sacramento River Division totals $5,925,000 and includes:

$ 175,000	Deer Fencing, Tehama-Colusa Canal
$ 100,000	Stony Creek Orifice
$ 500,000	Fish Passage Program
$1,000,000	Demonstration Research Facility Evaluation
$3,000,000	Hamilton City Pumping Plant Fish Facilities - Glenn-Colusa Irrigation District
$ 600,000	East Sand Slough
$ 250,000	Colusa Basin
$ 300,000	Captive Broodstock Program

SHASTA TEMPERATURE CONTROL DEVICE

Mr. Myers. What is the status of the Shasta Dam Temperature Control Device project?

Mr. Martinez. Construction is well underway and approximately 65 percent complete. As you know, this Temperature Control Device reflects state-of-the-art design concepts and is the first such device worldwide. Our latest construction schedules provide for completion late in 1996 instead of August 1996 as previously indicated.

Mr. Myers. Are the funds requested for FY 1997 sufficient to complete the project?

Mr. Martinez. Although the construction schedule has slipped it is anticipated the FY 1997 funds will be sufficient. We may however need additional funds in the fourth quarter of FY 1996 to accommodate changed conditions in the elevation of the reservoir. Work originally scheduled to be completed above water will now be accomplished underwater, which is very costly.

Mr. Myers. If not, what additional funds are required beyond FY 1997?

Mr. Martinez. Funds are necessary in FY 1998 for completion of transfer stipulations required prior to transfer to operation and maintenance status and for contract closeout requirements.

Mr. Myers. What is the status of the required state cost sharing for this project?

Mr. Martinez. To date the State of California has not provided cost sharing on this specific project. The State has advised the Department that they are pursuing a general obligation bond in the November 1996 general election which would among other things, provide a framework for the State financing of CVPIA actions. Pursuant to the terms and conditions of the cost sharing agreement signed by the State of California in June 1994, either party may fund all, none or any percentage of an individual restoration action as part of the cost-sharing requirement.

TRINITY RIVER RESTORATION PROGRAM

Mr. Myers. What is the status of the work identified in the conference report accompanying the FY 1996 Energy and Water Development Appropriations Act for the Trinity River Restoration Program?

Mr. Martinez. The conference report identifies an FY 1996 construction budget for the restoration program of $5,067,000 with $500,000 identified to carry out a management agreement between Reclamation and the Hoopa Valley Tribe. The $500,000 is being included in a management agreement between Reclamation and the Tribe to provide fishery monitoring, Trinity Flow EIS assistance, and restoration program technical support. We also continue to fund top priority projects that are identified in the action plan developed annually by the Trinity River Task Force.

STATE OF CALIFORNIA COST SHARING

Mr. Myers. Is the state of California living up to its cost-sharing obligations under the Central Valley Project Improvement Act?

Mr. Martinez: The State of California remains committed under the CVPIA Sharing of Costs Agreement for Mitigation Projects and Improvement signed June 27, 1994. Reclamation is currently preparing a report that will disclose the capital costs and annual costs of restoration actions including the extent of California cost sharing, as directed by House Report 104-149, which accompanied the FY 1996 Energy and Water Development Appropriations bill.

COLORADO RIVER BASIN SALINITY CONTROL PROGRAM

Mr. Myers. What level of cost sharing is required for the Colorado River Basin Salinity Control Program Basinwide Program? When will the projects to be undertaken in FY 1997 under the program be selected?

Mr. Martinez. P.L. 104-20, which amended Title II of the Colorado River Basin Salinity Control Act, allocates 30 percent of the costs to the basin States. The funds are collected through a surcharge on the price of energy produced at Reclamation hydropower facilities. The states' costs are either paid in full upon billing from power revenues or repaid in installments at market interest rates over the life of the projects.

Reclamation published a request for proposals in February 1996. Proposals are due from the public in August 1996. The proposals will be ranked and ready for awards early in FY 1997.

ANIMAS-La PLATA PROJECT

Mr. Myers. How are the funds provided in FY 1996 for the Animas-La Plata Project being utilized?

Mr. Martinez. The Animas-La Plata Project funds provided in FY 1996 are being used in numerous preconstruction activities, including Endangered Species Act, National Environmental Policy Act, and Clean Water Act studies that are underway and have provided the foundation for the Final Supplement to the Environmental Statement for the project. To meet fish and wildlife commitments, an option has been secured on land critical to both native fishes and bald eagles. Future funding will enable the option to be exercised. To meet wetlands commitments, construction plans for Ridges Basin Dam have been modified to allow wetlands development concurrently with and immediately downstream of the proposed Ridges Basin Dam. Designs, construction specifications, and Indian Self-Determination contract agreements in accordance with P.L. 93-638 have been completed on the Ridges Basin Dam, Stage A, foundation solicitation in anticipation of a contract award. This same effort is currently being invested in the outlet works solicitation. Project funds will also be used in land acquisitions for utility relocations and cultural resource mitigation.

COLUMBIA & SNAKE RIVER SALMON RECOVERY

Mr. Myers. Last year, you indicated that the total cost of the Columbia and Snake River Salmon Recovery Program was $61,226,000. This year, you show a total cost of $108,504,000. What activities are responsible for the increase in cost?

Mr. Martinez. The program increase is necessary to address the environmental commitments of the Salmon Biological Opinion which calls for Reclamation to provide water for augmentation flows in the Snake and Lower Columbia Rivers. Reclamation is to provide 427,000 acre-feet of water annually out of the Snake River basin at prescribed times to aid in several salmon species migration runs. The water purchases must be implemented between willing renters and sellers in accordance with State law. Over the next several years Reclamation desires to purchase permanent storage reservoir space to provide most of the annual water flow requirements. The free market cost to rent water and purchase storage space in the upper Snake basin is steadily increasing in response to increasing demand. With respect to all the water acquired for this purpose to date, the decision to rent or sell water for flow augmentation has been fully at the discretion of the private owner.

Mr . Myers. What is the purpose of Yakima Reregulation reservoir to be constructed as part of the Columbia/Snake Rivers Salmon Recovery Project. What is its total cost?

Mr. Martinez. The Yakima River Low-Flow Augmentation Reservoir was initiated in response to the Northwest Power Planning Council's Fish and Wildlife Program amendments in 1991. The amended program requested that Reclamation plan and implement demonstration projects that would benefit anadromous fish in the tributaries of the Snake and Columbia River basins. The purpose of the reregulating reservoir is to store water for release during low-flow conditions in a critical section of the Yakima River to protect habitat and assist in the migration of salmon and steelhead. The total estimated cost is $8.8 million. The State of Washington is contributing $2.5 million for this project.

Mr. Myers. Included in the items that caused a one-year delay in the completion of the Columbia/Snake Rivers project is "snail studies." What is the purpose of snail studies and why are they needed?

Mr. Martinez. The Bureau of Reclamation is involved in studying middle-Snake River snails that have been listed under the Endangered Species Act, based on requirements identified in a March 1, 1995 Biological Opinion issued by the U.S. Fish and Wildlife Service. Reclamation is required to conduct surveys on the Snake River to determine the extent of listed snail colonies in affected river reaches, to conduct water quality monitoring, and to carry out various studies to evaluate snail habitat requirements. Reclamation also routinely coordinates its upper Snake River salmon water releases with Idaho Power Company, the National Marine Fisheries Services, and the Fish and Wildlife Service.

EFFICIENCY INCENTIVES

Mr. Myers. How will the funds requested for FY 1997 for the Efficiency Incentives Program be utilized?

Mr. Martinez. Funds under this program will be used to provide cost-sharing to local agricultural and urban water districts that receive water from Federal water projects to encourage more efficient use of water through the demonstration and implementation of water conservation efficiency measures. Reclamation is directed under the Reclamation Reform Act of 1982 to encourage water conservation and efficient use of water on Federal water projects. Cost-sharing on efficiency improvements will be provided directly through agreements with districts, and indirectly through partnerships with States and others to support existing local water conservation program activities.

Mr. Myers. You indicate that the total cost of the Efficiency Incentives Program remains to be determined. Due to the budgetary situation, the committee is reluctant to initiate new programs without knowing outyear funding requirements. Is there any information you can give us about the total cost of this program?

Mr. Martinez. Reclamation is establishing this program to more effectively execute our ongoing responsibility to encourage efficient water use on Federal water projects, particularly in response to strong public support for incentive-based assistance as an alternative to increased Federal regulation. It is anticipated the Federal share of this program will remain at approximately $4,000,000 to $5,000,000 each year for ten years with up to 50 percent cost share.

Mr. Myers. What cost-sharing will be required for the Efficiency Incentives Program and how will projects be selected for participation in the program?

Mr. Martinez. Cost-sharing will be sought on projects funded under this program. Generally, 50 percent cost-share will be required. Activities to support existing State and local water conservation program efforts will be pursued on a matching fund basis. Some specific activities may require less than 50 percent non-Federal cost-share where broad public benefit from innovative demonstration activities is anticipated. Site-specific field programs will be developed at Reclamation's Area Offices each year to identify and select projects for participation in the program in consultation with local districts, States and other stakeholders.

ENDANGERED SPECIES CONSERVATION/RECOVERY PROGRAM

Mr. Myers. What has caused the total cost of the Lower Colorado Region Endangered Species Program to almost double since last year?

Mr. Martinez. As Reclamation proceeds with various environmental compliance activities in the Colorado River Basin and coordinates those activities with other Federal and non-Federal agencies, it is becoming apparent how significant the need is for activities to conserve and recover endangered species. The change in estimated costs reflects the expenses associated with the Multi-Species Conservation and Recovery Program signed in August 1995. This action resulted in the three lower basin states entering into a partnership with the Department of the Interior to develop a long-term conservation effort that will accommodate current and future water and power activities, and protect and enhance the endangered fish and their critical habitats in the lower Colorado River basin. Additional fish barriers that are needed on Colorado River tributaries and other species conservation projects along the Colorado River have also contributed to the increase in total costs.

Mr. Myers. Are all federally funded projects under this program associated with Federal projects? If not, what is your authority for undertaking activities not associated with Federal projects?

Mr. Martinez. All funded projects under this program are associated with Federal projects, and are contributing to the recovery or protection of endangered species along the Colorado River and its tributaries. This will help avoid jeopardy opinions on the operations of existing lower Colorado River Federal projects. Almost all of the Colorado River is impacted in some manner by Reclamation projects.

PACIFIC NORTHWEST ENDANGERED SPECIES PROGRAM

Mr. Myers. Is all work to be undertaken under the Pacific Northwest Region Endangered Species Program associated with Reclamation projects?

Mr. Martinez. Yes, all work included in the Pacific Northwest Region Endangered Species Program is associated with Reclamation projects.

UPPER COLORADO ENDANGERED SPECIES COST SHARING

Mr. Myers. Are activities under the Upper Colorado Region Endangered Species Program currently being cost shared?

Mr. Martinez. Funds used for activities receive varying degrees of cost-sharing. Some individual projects have received cost-shares including, $500,000, or 50 percent, for investigations on the Yampa River. The States of Colorado and Utah have invested substantial resources for instream flow filings.

Reclamation is seeking 50 percent cost-sharing from non-Federal sources, beginning in FY 1997, for the Upper Colorado Recovery Implementation Program. To address this issue, Upper Colorado River and San Juan River Recovery Implementation Program participants have developed draft legislation specifying cost-shares, which is scheduled to be transmitted to specific Congressional offices and Federal agencies for review in June of 1996. Reclamation's funding request for endangered species work represents 50 percent of projected needs.

ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM

Mr. Myers. Will cost sharing be required under the Platte River Endangered Species Recovery Program?

Mr. Martinez. Pursuant to a memorandum of agreement signed in June 1994 by the Governors of Nebraska, Colorado, Wyoming, and the Secretary of the Interior, the parties are seeking to pursue a basin-wide Platte River Recovery Implementation Program. The three states and the Federal Government will share in the costs of implementing the program. Interior has proposed to contribute $2.5 million per year for 10 years, for a total of $25 million, with the remaining costs of the Program during this ten-year increment being met by the three states.

MID DAKOTA RURAL WATER SYSTEM

Mr. Myers. At the level of funding requested for the Mid Dakota project, will any ongoing contracts have to be terminated?

Mr. Martinez. No, none of the ongoing contracts should be affected by the proposed budget. Reclamation has cautioned project sponsors not to award new contracts in FY 1996 that would have to be terminated in FY 1997 because of insufficient funds.

Mr. Myers. Last year you indicated that the project would be completed in FY 2002. What is the current estimated completion date?

Mr. Martinez. The current estimated completion date has been extended to FY 2004.

NATIONAL FISH AND WILDLIFE FOUNDATION

Mr. Myers. How are the funds provided in FY 1996 for the National Fish and Wildlife Foundation being utilized?

Mr. Martinez. The Cooperative Agreement, which allows transfer of funds from Reclamation to the Foundation, has recently been completed. The guidelines and application for grants under this program have been distributed and applications are due on April 11, 1996. We are planning to expeditiously complete our review and should begin informing successful applicants by the end of April 1996. Funding in the amount of $100,000 has already been transferred to the Foundation for the Kaweah Project which is one of the projects specifically identified in the Conference Report FY 1996 Energy and Water Development Appropriations bill.

SOUTHERN ARIZONA WATER RIGHTS SETTLEMENT ACT

Mr. Myers. Why was the decision made to request all funding for the Southern Arizona Water Rights Settlement Act through the Bureau of Reclamations Budget?

Mr. Martinez. Several water resources activities are in some stage of implementation on the Tohono O'odham Nation, using a complex combination of Central Arizona Project and Loan Program funds in Reclamation's budget and SAWRSA funds in the Bureau of Indian Affairs budget. Following appropriation, SAWRSA funds are transferred from BIA to Reclamation for administration. All projects would use CAP water.

Prior to FY 1994, funding for these activities was requested in Reclamation's budget, but SAWRSA funds were moved to BIA's budget when a new account to fund Indian water rights settlements was first proposed. The new account was The Land and Water Settlement Fund. Since then, it has proven difficult to coordinate the two requests. To simplify coordination, funding proposed for ongoing SAWRSA projects and water resources activities have been moved back to Reclamation's budget in FY 1997.

RECLAMATION RECREATION MANAGEMENT ACTIVITIES

Mr. Myers. How are the funds provided in FY 1996 for Reclamation Recreation Management Act activities being utilized? At what projects will the funds requested for FY 1997 be utilized?

Mr. Martinez. Funds will be used in FY 1996 to provide public health and safety and disability access in compliance with Federal and State laws and regulations, to provide protection of critical natural and cultural resources associated with recreation areas and facilities managed by non-Federal entities, and to modify or expand existing facilities and/or develop facilities to meet current public recreation demands.

Funds included in the Pacific Northwest Region's FY 1997 budget request provide for initiating 25 activities at the Boise and Minidoka Projects in Idaho, and Owyhee Project in Oregon.

In the Lower Colorado Region work at the following activities will be performed: Lake Cahuilla Rehabilitation, Lake Mead Recreation, Yuma Bike and Foot Path, Scottsdale Trails, City of Phoenix Canals, and Salt River Project Canal System Improvement.

Mid Pacific Region has not requested funding for FY 1997.

In the Great Plains Region funding will be used on six projects and eight units in the Pick-Sloan Missouri Basin Program. They are listed as follows:

- Colorado-Big Thompson Project
- Kendrick Project
- Pick-Sloan Missouri Basin Program
    - Bostwick Division, Courtland Unit
    - Bostwick Division, Webster Unit
    - Boysen Unit, Boysen Unit
    - Cheyenne Division, Angostura Unit

Garrison Division, Garrison Diversion Unit
Heart Butte Division, Dickinson Unit
Solomon Division, Glen Elder Unit
Solomon Division, Webster Unit
San Angelo Project
Shoshone Project
Washita Basin Project
Wichita Project

In the Upper Colorado Region rehabilitation of infrastructures at the following reservoirs will take place: Deer Creek, East Canyon and Rockport in Utah, Crawford, Vega, Rifle Gap and Paonia in Colorado, and Navajo in New Mexico.

Title 28 funding is not being used to support recurring annual O&M costs of the managing partners. As a note, O&M support of recreation facilities in the Upper Colorado Region at Deer Creek, East Canyon and Rockport in Utah, Crawford, Vega, Rifle Gap and Paonia in Colorado, and Navajo in New Mexico are provided under Colorado River Storage Project authorities and not under Title 28.

CADDO LAKE WETLAND INITIATIVE

Mr. Myers. What is the status of the Caddo Lake wetlands project in Texas?

Mr. Martinez. In fiscal year 1995, Reclamation was appropriated $2.5 M and directed to accomplish several objectives at Caddo Lake in cooperation with the Texas Parks and Wildlife Department and other Federal partners. These objectives included research, wetland restoration, sustainable development, outreach and ecosystem management activities. All FY 1995 funded activities were completed by March 1996.

In fiscal year 1996, Reclamation was appropriated an additional $2.7 million to continue Caddo Lake activities. Portions of the funding designated for wetland restoration and research activities have been committed. Reclamation is investigating its options for expenditure of the remaining appropriation.

BRACKISH WATER RECLAMATION AND NORTHWEST WASTEWATER REUSE PROJECTS

Mr. Myers. How are the funds provided in FY 1996 for the Brackish Water Reclamation Demonstration Program project in California and the Northwest Wastewater Reuse project in Texas being utilized?

Mr. Martinez. The funds appropriated in FY 1996 are being used to prepare and award a cooperative agreement whereby Reclamation will provide up to 25 percent of the total project costs of the Brackish Water Reclamation Demonstration Facility. This includes preparing the necessary NEPA clearance documents. In addition, technical experts from

Reclamation's Technical Service Center have been reviewing preliminary plans and providing comments that will result in a better design. It is anticipated that the cooperative agreement will be complete in June 1996.

Funds provided in FY 1996 for the Northwest Wastewater Reuse project in El Paso, Texas are being reserved to support construction of this project, which is scheduled to begin in the Spring of 1996. However, since this project is not included in the Reclamation Wastewater and Groundwater Study and Facilities Act, Title 16 of P.L. 102-575, Reclamation is concerned that it may not have congressional authority to expend these funds for construction of this project. A legal opinion has been requested. This project is included in Title II of the Reclamation and Water Conservation Act of 1995, H.R. 2738, which we understand, was favorably reported out of the House Resources Committee last December and is currently awaiting consideration by the full House.

Mr. Myers. Why were no funds requested in FY 1997 to continue those projects?

Mr. Martinez. The FY 1997 budget request for wastewater reclamation and reuse in the Construction program is limited to the four major projects already underway in FY 1996.

OPERATION AND MAINTENANCE

Mr. Myers. Due to budgetary constraints, the amount appropriated in FY 1996 for Operation and Maintenance was $15,683,000 below the budget request. In applying the reduction, the House and Senate conferees on the FY 1996 bill stated their expectation that Reclamation would use the flexibility available to it to ensure that the most critical O&M needs would be met. The conferees also expressed their expectation that the Bureau of Reclamation would derive a significant share of the reduction from the various Associated O&M Programs in order to retain as much money as possible for O&M of projects. Please provide for the record a table showing the projects and/or programs that have had their FY 1996 allocations reduced as a result of the reduction in appropriations below the budget request.

Mr. Martinez. I will be glad to provide a table for the record.

[Information for the record]

	(In Thousands)		
Project/Programs	FY 1996 Request	FY 1996 Final	Change
Regular O&M:			
Central Valley Project Improvement Act	8,058	6,692	-1,366
San Luis Unit, CVP	8,293	1,293	-7,000
Associated O&M Programs:			
Dept. Irrigation Drainage Program	4,278	2,917	-1,361
Environmental Program Admin.	1,816	1,169	-647
Examination of Existing Structures	2,458	2,128	-330

Land Resources Management	7,213	5,940	-1,273
Miscellaneous Flood Control	651	555	-96
Nego/Admin of Water Marketing Contr.	9	7	-2
Power Program Services 1/	375	927	+552
O/M Program Management	243	195	-48
Public Access and Safety Program	937	665	-272
Reclamation Law Administration	5,537	4,705	-832
Rec and F&WL Program Administration	4,679	3,412	-1,267
Safety Evaluation of Existing Dams	7,690	7,690	0
Soil and Moisture Conservation	249	219	- 30
Water Management and Conservation	12,022	10,551	-2,471
			-15,683

1/ Additional funds were required for the National Performance Review Power Management Laboratory.

SAN LUIS UNIT

Mr. Myers. The amount requested in FY 1996 for the San Luis Unit of the Central Valley Project was $8,293,000. This year, you indicate that only $1,250,000 is being allocated to the project in FY 1996. It appears that almost one-half of the total reduction in Reclamation's FY 1996 Operation and Maintenance program was derived from this one unit of the Central Valley Project. Why is that?

Mr. Martinez. The San Luis Unit was reduced $7 million in response to direction in the Senate report. The Senate specified the amount for the San Luis Unit as $1,293,000 instead of the $8,293,000 that was requested. A further reduction of $43,000 was made in response to the directive in the House Report which increased the funding for the Trinity River Division by $824,000. This directive was accomplished by reducing all the Central Valley project division and units, including the San Luis Unit, on a pro-rated basis.

Mr. Myers. What impact will this reduction have on operation and maintenance of the project?

Mr. Martinez. The $7 million reduction in San Luis operation and maintenance funds will preclude Reclamation from reimbursing the State Water Project Contractors for the Federal share of the 1996 costs they incur in operating the joint-use facilities of the San Luis Unit.

Mr. Myers. Are the rates being paid by the water users based on the amount Reclamation requested in FY 1996 for operation and maintenance of the San Luis Unit?

Mr. Martinez. The $7 million originally included in the operation and maintenance budget for the San Luis Unit was included in the calculated Central Valley Project water rates for 1996, but those bills have not been paid.

Mr. Myers. If so, what are you doing with the additional funds?

Mr. Martinez. Reclamation is currently evaluating available options relative to the $7 million. One of the options being considered is to revise the 1996 water rates charged to the water users. Other options involving water user advances are under consideration.

BONNEVILLE POWER ADMINISTRATION

Mr. Myers. What is the total cost of the work currently being funded directly by the Bonneville Power Administration?

Mr. Martinez. The estimated total cost of existing subagreements for work being funded directly by the Bonneville Power Administration is $198.8 million. The FY 1997 funding for these projects is $10.4 million.

Mr. Myers. How long will this program last?

Mr. Martinez. Work under the subagreements for the winding repair on generators 22-24 in the Third Powerplant at Grand Coulee Dam, transformer replacement at Hungry Horse Dam, and rebuilding the Minidoka Powerplant will complete in fiscal year 1997. The subagreement for modification of the Boise Diversion Dam Powerplant will be completed in fiscal year 1999. The subagreement for turbine runner replacement on generators 1-18 at Grand Coulee Dam Powerplants will be completed in fiscal year 2007. Additional subagreements may be executed for Bonneville Power Administration's direct funding of major power replacements, additions, and improvements at Reclamation facilities in the Pacific Northwest.

RADIO BAND SPECTRUM CONVERSION

Mr. Myers. How much is included in the FY 1997 budget request for the conversion from wide-band radio spectrum to narrow-band radio spectrum?

Mr. Martinez. The FY 1997 budget request includes $500,000 for the conversion to a narrow band radio radio spectrum.

Mr. Myers. What is the total cost of the work and when will it be completed?

Mr. Martinez. The total cost of the conversion program is estimated to be $13.7 million. The conversion will be completed by January 2005.

Mr. Myers. Why is it necessary to make the conversion?

Mr. Martinez. In an effort to conserve radio frequency spectrum, the National Telecommunications and Information Administration has issued a requirement that all radio band users convert to the narrowband spectrum by 2005. Since no manufacturer currently makes equipment that conforms to the standard that Reclamation will use, the project is being phased in until equipment becomes available.

UNAUTHORIZED USE OF WATER

Mr. Myers. Please describe the activities you plan to undertake in FY 1997 related to the elimination of the unauthorized use of water.

Mr. Martinez. The Bureau of Reclamation is committed to eliminating unauthorized use and to take steps to prevent future unauthorized use of Reclamation project waters. As a result of our review of this situation, we now better understand the extent and nature of the problem. Resolving unauthorized use is going to be time consuming and complex. The Bureau has over 8700 water contracts, 90 years of legislation, and hundreds of court decisions that must be considered in resolving this issue. We will need to resolve each instance of unauthorized use on a case-by-case basis. Resolution of unauthorized use must be done in conjunction with the states and in recognition of western water law. During 1997, Reclamation will continue to work on resolving unauthorized use on a case-by-case basis, as we are currently doing in the Umatilla Basin.

Mr. Myers. What is the total cost of that work?

Mr. Martinez. It is difficult to project the total cost at this time; however, Reclamation has included approximately $1.9 million for this work in FY 1997.

BRANTLEY DAM, NEW MEXICO

Mr. Myers. Why are there higher requirements for administrative costs associated with operation and maintenance of Brantley Dam in New Mexico?

Mr. Martinez. The increase in operation and maintenance costs, identified as "administrative costs," is for preparation of a resource management plan for Brantley and Sumner Reservoir areas, preparation of an EA or EIS for re-operation of Brantley and Sumner Dams to sustain the endangered bluntnose shiner; leasing water to sustain the bluntnose shiner; and geographic information system work associated with the aforementioned activities.

TRINITY RIVER RESTORATION PROGRAM

Mr. Myers. Please explain how the expiration of the original authorization of the Trinity River Restoration Program in FY 1996 results in a decrease in the amount requested in FY 1997 for operation and maintenance of the project.

Mr. Martinez. At the time the FY 1997 operation and maintenance budget for the Trinity River Division was formulated, authorization of the Trinity River Restoration Program was to expire at the end of FY 1995. In the FY 1996 Energy and Water Development Appropriations Act, the Congress authorized the extension of the existing law for 1 year.

Reclamation supports reauthorization of the Program and will reprogram funds from within the operation and maintenance appropriation to comply with the directives of reauthorizing legislation.

COLLBRAN PROJECT

Mr. Myers. The amount requested for the Collbran project in Colorado is about one-half the amount provided in FY 1996. You indicate that an effort is underway to obtain the other half of the funding, which would provide for power related operation and maintenance costs, from power customers. What is the status of those negotiations?

Mr. Martinez. Reclamation requested sufficient appropriated funds for ordinary operation and maintenance costs. Reclamation has begun informal meetings with the Western Area Power Administration regarding direct funding of major rehabilitations.

Mr. Myers. What will you do if Congress only appropriates the amount requested and you are unable to reach agreement on a funding arrangement with the power customers?

Mr. Martinez. In that event, Reclamation will consider deferring miscellaneous replacements, additions, and extraordinary maintenance items scheduled for the year.

COLUMBIA BASIN PROJECT

Mr. Myers. For the Columbia Basin project in Washington, please explain the work proposed for FY 1997 that is required for National Historic Preservation Act compliance.

Mr. Martinez. Work proposed in FY 1997 includes coordination and consultation with Native American tribes, archeological test excavations for determination of site eligibility on the National Register of Historic Places, and preparation of a cultural resource management plan.

GEOGRAPHIC INFORMATION SYSTEMS

Mr. Myers. How much is included in Reclamation's FY 1997 Operation and Maintenance budget request for Geographic Information Systems work?

Mr. Martinez. Reclamation's FY 1997 request includes $5 million for GIS work.

Mr. Myers. What is the purpose of this work?

Mr. Martinez. The use of GIS varies across Reclamation's offices and programs. Reclamation wishes to strengthen its ability to utilize GIS and related data analysis tools. Reclamation is seeking to develop, through partnerships with other GIS users and data providers, the means to obtain, manage, and distribute data to assist water resource management decision making. Given the appropriate data, GIS has tremendous potential to provide high quality decisions based on sound technical data using fewer resources and within shorter time frames. The goal is to enhance application of these technologies by Federal, state and local water resource managers and to capitalize on the tremendous potential of GIS and data sharing to facilitate better water and land resource management with fewer staff resources.

Mr. Myers. How much is included in the FY 1996 program for this work?

Mr. Martinez. In FY 1996 there is $2 million identified for GIS.

MIDDLE RIO GRANDE PROJECT

Mr. Myers. Please provide a more detailed explanation of the "new work" proposed for FY 1997 for the Middle Rio Grande Project in New Mexico, particularly the work associated with the Denver Technical Center service agreement?

Mr. Martinez. The list of new work starting in FY 1997 is inaccurate. Most of the items listed should have been identified as "work continuing" and not as "work starting in FY 1997." For example, the Albuquerque Area Office has had service agreements with the Denver Technical Center for years for sedimentation expertise not available locally. The geographic information system work is new and is part of an effort to establish data bases for better resource management.

Mr. Myers: Are there similar agreements for other projects?

Mr. Martinez: Yes, there are many other service agreements between the Denver Technical Center and Area and Regional Offices. A primary purpose of the Denver Technical Center is to provide specialized technical and scientific expertise not available elsewhere in Reclamation.

MINIDOKA AREA PROJECT

Mr. Myers. Please explain the resource management customer service program being proposed for the Minidoka Area project.

Mr. Martinez. The purpose of the resources management customer service program is to provide assistance to and respond to questions from Reclamation customers such as water users; local, state, and Federal government agencies; and fish, wildlife, and recreation interests. The general public frequently contacts the Minidoka field office regarding resource management issues. Many hours are spent each year researching information, attending meetings, and responding to the public.

PARKER-DAVIS PROJECT

Mr. Myers. You state that the budget request for the Parker-Davis Project in California assumes increased cost-sharing from power customers. Have you reached an agreement with the power customers for payment of operation and maintenance costs for the project?

Mr. Martinez. Reclamation, together with the Western Area Power Administration, has been negotiating with power customers to come to an equitable agreement for upfront funding, but a final agreement has not been reached.

Mr. Myers. If no agreement is reached by the beginning of FY 1997 and Congress provides the amount requested, what will you do?

Mr. Martinez. In that event, Reclamation will consider deferring miscellaneous replacements, additions, and extraordinary maintenance items scheduled for the year. Should it prove necessary, Reclamation would consider transferring funds from other programs to fund operation and maintenance of the project until an agreement is in place.

ENVIRONMENTAL PROGRAM ADMINISTRATION

Mr. Myers. Please explain the extensive environmental law compliance activities within the Colorado River Basin that contribute to the increase in the amount requested for Environmental Program Administration.

Mr. Martinez. The Secretary of the Interior has the unique role of water master on the lower Colorado River. As the use of Colorado River water within the three lower basin states of Arizona, California, and Nevada has increased, Reclamation is performing more NEPA compliance activities on the Colorado River associated with administration of entitlements of Colorado River water. These compliance activities are expected to increase as the demand for Colorado River water increases. Cultural resource compliance activities on Reclamation withdrawn lands, not associated with either the Central Arizona Project or Salt River Project in Arizona, have also added to the program costs.

LAND RESOURCES MANAGEMENT

Mr. Myers. How much of the amount requested for Land Resources Management is for activities related to the Native American Graves Protection and Repatriation Act?

Mr. Martinez. The Bureau of Reclamation is requesting $252,000 in Land Resources Management for activities related to the Native American Graves Protection and Repatriation Act. We have also requested funding of $80,000 for conducting these activities within Environmental Program Administration, and $57,000 in Project General of the Central Valley Project.

Mr. Myers. What is the purpose of the resource management plans being conducted under the Land Resources Management Program?

Mr. Martinez. The purpose of resource management plans is to document existing land uses, suitability, capability, responsibilities, authorities, and legal rights in order to develop a coordinated management program for those lands. The plans are updated every 5-10 years to reflect changes in operational, social, environmental, or cultural conditions. Plans also provide direction and identify specific actions necessary to perform critical resource management stewardship that, if not performed, would prevent protection of resources or operation of a facility for the public. It is a key element in management of Reclamation's infrastructure, and enhances Reclamation's ability to provide public benefits, such as recreation and fish and wildlife.

Mr. Myers. How much is included in the budget request for those plans?

Mr. Martinez. The total request for resource management plans is $1,052,000, spread across 9 projects.

POWER MANAGEMENT LABORATORY

Mr. Myers. What is the National Performance Review Power Management Laboratory?

Mr. Martinez. As a follow up to the National Performance Review and the reinvention of the Bureau of Reclamation, the hydropower generation aspect of its program was selected for an in depth review. The Laboratory's purpose is to measure performance indicators for all Reclamation powerplants, compare those indicators to industry-wide standards, and thus assist Reclamation in identifying how to better serve its customers, how to improve efficiency, and how to find ways to become the best in the hydropower industry. It will serve as our foundation to launch significant changes in the way we manage our Power Program. Reclamation's overall goal is to provide reliable, cost effective electricity through innovative and efficient power management while improving the compatibility between hydropower and the environment.

RECREATION AND FISH AND WILDLIFE PROGRAM

Mr. Myers. Why isn't the work performed under Recreation and Fish and Wildlife Program Administration funded under the individual projects where the work is performed?

Mr. Martinez. Activities funded by Recreation and Fish and Wildlife Program costs are charged to specific projects where applicable. However, since benefits involve a number of small projects it is more efficient to aggregate these costs. The work involves managing natural, restored, and artificially designed fish and wildlife habitats, evaluating impacts of existing project operations on wetlands and endangered species habitat, rehabilitating fish and wildlife habitat cover, water resources adjudication, and vegetative studies related to fish and wildlife.

SAFETY EVALUATION OF EXISTING DAMS

Mr. Myers. Please provide a better explanation of the increase in funding requested for the Safety Evaluation of Existing Dams Program.

Mr. Martinez. The FY 1997 request of $9,416,000 includes a one-time allowance of $311,000 to improve instrumentation at various dams to adequately monitor critical dam performance features.

The lower request in FY 1996 was the result of rescheduling activities within the O&M Appropriation for that year, while focusing on those structures representing the greatest potential risk. The remaining $9,105,000 request, therefore, is consistent with the requests submitted in years prior to FY 1996.

The FY 1997 request allows the program to return to the level established in previous years and reflects Reclamation's continued emphasis on the public safety concerns associated with our dams.

STANDARDIZED O&M MANAGEMENT PRACTICES

Mr. Myers. Please explain the new standardized O&M management practices which will be implemented Reclamation-wide and why it is needed?

Mr. Martinez. All Reclamation powerplants and large water facilities are currently performing standardized maintenance management using an antiquated computerized system called Project Office Maintenance Management System. A new program, Reclamation Enterprise Maintenance Management System, known as REMMS, has been developed and is scheduled for implementation during FY 1996. This new system integrates three administrative managements systems: The inventory and warehouse management system, the heavy equipment and motor vehicle fleet management system, and the payroll data entry system. This will improve O&M business practices by allowing more efficient maintenance management and scheduling.

GENERAL INVESTIGATIONS

Mr. Myers. Please provide for the record the specific authority for each of the 18 new studies included in the FY 1997 budget request.

Mr. Martinez. I will be glad to provide the information you requested for the record.

(Information for the Record:)

18 New Studies and Their Authority

1. Carbon/Emery County Water Management Plan - Reclamation Act of 1902, June 17, 1902.

2. Cheney Reservoir Water Quality Investigation - Reclamation Act of 1902.

3. Cold Climate Wastewater Reuse - Reclamation Act of 1902; Public Law 102-575, Title 16, October 30, 1992.

4. Delta Model Development Group - The Act of August 26, 1937, Central Valley Project California, and Colorado River Project, Texas; The Act of August 27, 1954, Waterfowl Management, Central Valley Project Act.

5 Dolores River Basin Runoff Model - Reclamation Act of 1902.

6. Friant Upper Basin Optimization Study - Reclamation Act of 1902; and Public Law 102-575, Title 34, October 30, 1992

7. Hopi Water Management Study - Reclamation Act of 1902.

8. Jefferson River Basin - Reclamation Act of 1902.

9. Lower Owens River Environmental Study - Reclamation Act of 1902; North American Wetlands Conservation Act of 1989; Migratory Bird Treaty Act of 1918.

10. Middle Rio Grande Water Conveyance Management Plan - Reclamation Act of 1902.

11. Montana River Systems Study - Reclamation Act of 1902; Public Law 102-486, The Energy Act of 1992, section 2405.

12. Mystic Lake Watershed Management Investigations - Public Law 102-575, Title 16, October 30, 1992; Reclamation Act of 1902.

13. Navajo Water Management Study - Reclamation Act of 1902.

14. New Melones Temperature Control Evaluation - Flood Control Act of 1944, December 22, 1944; Flood Control Act of 1962, October 23, 1962, as amended and supplemented; and Public Law 102-575, Title 34, October 30, 1992.

15. Ogden River Basin Water Quality Management Investigation - Reclamation Act of 1902.

16. Southern Arizona Regional Water Management Study - Public Law 102-575, Title 16, October 30, 1992; Reclamation Act of 1902.

17. Umatilla Basin Project, Phase III - Public Law 89-561, September 7, 1965.

18. Upper Arkansas River - Reclamation Act of 1902.

COST SHARING ON PLANNING STUDIES

Mr. Myers. The justification documents indicate that "almost all" of the studies included in the budget request have cost-sharing partners. Which do not and why do they not?

Mr. Martinez. Several studies have Indian Tribes as partners. It is Reclamation's policy that we do not require a full 50 percent cost-share for these studies. The Cold Climate Wastewater Treatment Study, Hopi Water Management Study, and Navajo Water Management Study have 10 percent non-Federal cost sharing. The Missouri River Basin Tribes Water Study has no cost-sharing.

Two investigations in our program are at the appraisal level, where cost-sharing is not required. They are the Friant Upper Basin Optimization Study and the New Melones Temperature Control Evaluation.

Another study is the Colorado River Water Quality Improvement Study. While no formal cost-sharing agreement has been executed, the management of the Colorado River Basin Salinity Program is directly cost shared by the Basin States through the Colorado River Basin Salinity Control Forum, Forum Work Group, and Advisory Council. The States fund the executive director's position and staff at $110,000 per year. In addition, each of the Basin States fund 4 to 5 employees to participate in the Forum and Forum Work Group.

Mr. Myers. Is there a statutory requirement for cost-sharing of Reclamation studies? Why do projects have different levels of cost-sharing?

Mr. Martinez. There is no statutory requirement for cost-sharing General Investigations studies. It is Administration policy that Reclamation actively seek 50 percent cost-sharing with non-Federal entities. The exception to this are studies which involve Native Americans as cost-sharing partners. We encourage the Tribes to cost-share to the fullest extent possible. The Bureau also does not require cost-sharing on appraisal level investigations which are generally less than $100,000.

COLD CLIMATE WASTEWATER TREATMENT STUDY

Mr. Myers. What is the connection of the Cold Climate Wastewater Treatment Study to the mission of the Bureau of Reclamation?

Mr. Martinez. Reclamation, as part of its mission, encourages the reuse of wastewater to extend existing water supplies, to improve water quality of the Nation's water resources through using grants and technical assistance with cost-sharing partners. Reclamation is specifically authorized to undertake these activities pursuant to Title XVI of P.L. 102-575. Reclamation also proactively pursues water resource related activities with Native American Indian Tribes and others. Montana State University is a partner on this research project, which is being pursued under this authority.

HOPI WATER MANAGEMENT STUDY

Mr. Myers. Why is Reclamation involved in the Hopi Water Management Study in Arizona? Please explain the statements contained in the justification sheets regarding the Tribe's seeking Public Law 93-638 contract authority and the need for the Tribe to develop its own capability.

Mr. Martinez. The Hopi Tribe has requested Reclamation's help to develop the ability to manage its water resources. They feel our expertise and capability can be used to help them develop their resources. The 638 Contracting process will be used so that the Hopi Tribe can be an active participant in the study. This study will allow the tribe to develop a trained staff to manage their water resources in the future. These activities are consistent with the President's policy described in his Memorandum for the Heads of Executive Departments and Agencies, title "Government-to-Government relations with Native American Tribal Governments," dated April 1994.

GENERAL INVESTIGATIONS

Mr. Myers. Please provide for the record a detailed breakdown of how the funds provided in FY 1996 for Environmental and Interagency Coordination Activities and General Planning Studies are being utilized.

Mr. Martinez. I will be glad to provide the information you requested for the record.

(Information for the Record:)

Environmental and Interagency Coordination Activities

1. Coordination with other Federal and State agencies on programs of common interest; reviewing NEPA compliance documents of other agencies, attending interagency coordination meetings, and developing interagency agreements. Ecosystem management interagency activities such as developing interagency ecosystem management strategies.

2. General water resource and environmental coordination, and support activities such as: Rio Grande Bosque Conservation Initiative; Rio Grande Basin Interagency coordination; USGS Water Quality Assessment; teams to support DOI US/Mexico border issues; coordination with the Texas-New Mexico Joint Settlement Commission; Grand Canyon Trust Cooperative

Agreement; California Rivers Assessment; Refuge Use and Economic Evaluation Study; and the Effie Yeaw Nature Center - Aquatic Ecosystem Program for elementary children.

3. Development of responses to administrative, congressional and public inquiries regarding planning activities which are not included as line items in the current year program.

4. Coordination with Northwest Power Planning Council on the 1980 Power Act Energy Conservation and Fish and Wildlife Program. Participation in development of a management plan with National Marine Fisheries Service, Indian tribes, and others for Columbia and Snake River salmon recovery including potential and listed threatened and endangered species.

5. General coordination with non-Federal interests for wastewater reuse initiatives.

General Planning Studies Work

1. Begin preliminary scoping activities of local problems and needs to meet the Administrations goals and objectives of more efficient use of water.

2. Environmental enhancement - identify actions that could enhance habitat for threatened and endangered species.

3. Regional recreation development - review and research regional recreational economic expenditures across the West. Develop guidance for assessing recreational opportunities on existing facilities.

4. Optimization models, hydropower - review latest techniques in economic models for power optimization.

5. Prediction of river discharge with analysis of uncertainty methodology. Cooperative study with National Weather Service on rainfall frequencies.

6. Ecosystem management planning techniques - develop techniques and procedures to assist in ecosystem planning for Reclamation. For example, the Lake Mead Appraisal which involves reviewing reports/studies on varying the level of Lake Mead in regards to the effects on the vegetation around the Lake.

LOAN PROGRAM

Mr. Myers. When will the completed loan applications for the Narrows and the San Sevaine Creek Water projects be transmitted to Congress?

Mr. Martinez. The Loan Application Report for the Narrows Project is complete but the NEPA process is still ongoing. A Record of Decision is expected by mid-August, 1996. The completed loan application is expected to be transmitted to Congress by the end of fiscal year

1996. The Loan Application for the San Sevaine Creek Water Project is completed and a package is being prepared for transmittal to Congress within the next month.

Mr. Myers. Is it your intention to complete the Narrows and San Sevaine Projects?

Mr. Martinez. We are committed to processing these loan applications and forwarding them to the Secretary for transmittal to Congress. We have no objection to funding the two remaining loans as long as total funding in FY 1997 does not exceed $9.45 million for the "grandfathered" loans processed since May 1994. Grandfathered loans for which funding is requested in FY 1997 are Castroville, Chino Basin, Milltown Hill, Salinas Valley, and Temescal projects. Funding for San Sevaine or Narrows should be contingent on a finding by the Secretary that the projects are technically feasible and constitute a reasonable risk for a loan under the Small Reclamation Projects Act.

Mr. Myers. Are there any other loan applications currently being processed?

Mr. Martinez. No, there are no other loan applications currently being processed.

Mr. Myers. Is it the Administration's plan to terminate the loan program following completion of the projects included in the FY 1997 budget request and the Narrows and San Sevaine Creek projects?

Mr. Martinez. Last year, as part of the National Performance Review Phase II, the Administration announced that five small programs were proposed for elimination. One of these programs was the Small Reclamation Projects Act Loan Program. It was felt that this program was no longer essential to the Bureau's mission in a time when Federal funding faces significant reductions.

GENERAL ADMINISTRATIVE EXPENSES

Mr. Myers. How many FTE's are being supported by the amount provided for General Administrative Expenses in FY 1996 and how many will be supported by the amount requested in FY 1997?

Mr. Martinez. In FY 1996 and FY 1997 343 FTE's are being supported by the General Administrative Expenses account.

Mr. Myers. What is the Interior Department Electronic Acquisition System?

Mr. Martinez. The Interior Department Electronic Acquisition System is an automated acquisition system being implemented throughout the Department and is designed to streamline and enhance the acquisition process.

How much is included in your FY 1997 budget request in support of the system?

Funding for the basic development of IDEAS was provided by the Department. Approximately $556,000 is included in the FY 1997 budget for implementation of IDEAS within Reclamation.

Mr. Myers. What is the annual cost associated with implementation of the Chief Financial Officers Act?

Mr. Martinez. The annual cost associated with implementation of the Chief Financial Officer's Act is approximately $167,000. Implementation costs include the development and preparation of the Chief Financial Officer's Annual Financial Statement for Reclamation; the review and implementation of statements issued by the Federal Accounting Standards Advisory Board; the chairing of the Reclamation-wide Chief Financial Officer's Council; and participation on the Departments Chief Financial Officer's Council.

Mr. Myers. How much is included in the FY 1997 budget request for the Human Resources Development Program? Please provide for the record a detailed breakdown of how those funds will be utilized?

Mr. Martinez. The Human Resources Development Program is responsible for providing policy direction and guidance for the Bureau of Reclamation relating to human resources management oversight and management training and development. GAE funding provides for the administration of the program and totals $223,000 for FY 1997. Program funding includes 1.3 FTE directly related to developing personnel training policies, conducting training on the automated training records system, and the administration of training programs throughout the Bureau.

Mr. Myers. The budget request includes a proposal to make all General Administrative Expenses available until expended. Please explain how this proposal will permit managers to operate more efficiently.

Mr. Martinez. With annual appropriations, managers must accept products or services that can be afforded and procured within the available funding and one year limits. By allowing the carry over of funds, we can ensure a longer term perspective in the procurement of services or products. Given that these services and products support activities with a multi-year time horizon, this change would provide maximum benefits and efficiencies to the activities being supported.

Mr. Myers. You imply that the current method of appropriating funds for General Administrative Expenses produces spending, not results. Do you now have managers who spend money simply for the sake of spending it before the fiscal year ends?

Mr. Martinez. Our managers don't spend money at year end simply for the sake of spending it. Rather, they procure the products that are accessible and affordable because the funding will not be available after the fiscal year ends. There are instances where funds could be combined to obtain products or services that would be cheaper over the long run.

CUP COMPLETION ACT

Mr. Myers. Last year, the budget stated that the work authorized for the Central Utah Project in Public Law 102-575 was scheduled to be completed by September 2003. This year, you indicate that the work will be completed in September 2005. What is the reason for the schedule slippage?

Ms. Beneke. The projected date for completion of the Central Utah Project is dependent upon a number of factors, including assumptions made regarding the avalability of Federal funds. Recognizing the goal of balancing the budget by FY 2002, the Central Utah Project Water Conservancy District submitted a revised construction schedule with its FY 1997 request that reduced the annual appropriations required and extended the project completion date. The completion date of FY 2005 shown in the FY 1997 budget is based on the new schedule.

Mr. Myers. Has the State of Utah made its required contributions to the Utah Reclamation Mitigation and Conservation Account?

Ms. Beneke. The State of Utah has made all of its required contributions to the Utah Reclamation Mitigation and Conservation Account.

Mr. Myers. Has the Central Utah Water Conservancy District met all of its obligations under the Central Utah Project Completion Act?

Ms. Beneke. Thus far, the Central Utah Water Conservancy District has met all of its obligations under the Act including planning requirements, cost-sharing requirements, its contributions to the Mitigation Account, National Environmental Policy Act compliance, and its contractual obligations.

Mr. Myers. Are you satisfied that the money the taxpayers are contributing to this project is being spent wisely?

Ms. Beneke. The Department is satisfied that the Federal contributions to this project are being spent wisely. A program coordination office has been established in Provo, Utah, that reports to my office. This program coordination office monitors the performance of the District, the Commission, and the Tribe and their expenditure of funds.

ANIMAS-LA PLATA PROJECT

Mr. Myers. Mr. Secretary, the fiscal year 1996 Energy and Water Development Appropriations Act contained the following provision: "In order to ensure the timely implementation of the Colorado Ute Indian Water Rights Settlement Act of 1988, the Secretary of the Interior is directed to proceed without delay with construction of those facilities in conformance with the final Biological Opinion for the Animas-La Plata Project, Colorado and New Mexico, dated October 25, 1991."

What have you done and what are you doing to comply with that provision of law?

Mr. Babbitt. I understand that in complying with the FY 1996 directive several significant accomplishments have been achieved in concert with both Colorado Ute Indian Tribes and cost share partners. For example:

Endangered Species Act, Clean Water Act, and National Environmental Policy Act studies have continued and we are nearing completion of the land acquisition process, consisting of appraisals, options, and acquisitions, for both mitigation and project construction needs.

A "Division of Work" for Indian Self-Determination contracts has been negotiated with the two Ute Tribes. A Facilities Agreement has been prepared for the relocation of the Northwest Pipeline Corporation natural gas pipeline which in turn is critical to Ridges Basin Dam construction. The Facilities Agreement along with several other components will be used in the application to the Federal Energy Regulatory Commission for a Certificate of Public Convenience and Necessity and Permission and Approval for Abandonment under Sections 7(b) and 7(c) of the Natural Gas Act.

Construction specifications have been completed for Ridges Basin Dam, Stage A, Outlet Works. Self-Determination contract clause identification is currently under way. A service agreement has been prepared between Reclamation field offices identifying a Joint Venture approach in project development while meeting Technical Assistance commitments to both Colorado Ute Tribes. This joint venture approach optimizes existing personnel, expertise, and resources.

Mr. Myers. Mr. Secretary, you indicated in your statement that the Department's FY 1997 budget is about meeting commitments and that one of those commitments is to Native Americans to meet your trust responsibilities and to advance Tribal self-determination and self-governance. Is completing the Animas-La Plata Project one of those commitments?

Mr. Babbitt. The Department supports construction of the Animas-La Plata Project in accordance with the Colorado Ute Indian Water Rights Settlement Act. We are committed to fulfilling our Trust responsibilities. It is important, however, to note that addressing the technical, procedural and legal issues applicable to the Animas-La Plata Project is a formidable challenge.

Mr. Myers. Mr. Secretary, last year you provided us with a schedule for the Animas-La Plata Project that called for a Record of Decision on the Supplemental Environmental Impact Statement by the end of last December and the initiation of construction in June of 1996. This year's budget indicates that the Supplemental Environmental Impact Statement will be filed with the Environmental Protection Agency in 1996. What is the reason for the delay in completing the EIS?

Mr. Babbitt. Additional time was required to complete technical studies and Endangered Species Act compliance.

Mr. Myers. When do you now expect the Record of Decision to be signed?

Mr. Babbitt. Given National Environmental Policy Act procedural requirements, the Record of Decision can be signed no sooner than 30 days after the filing date of the Final Supplement to the Final Environmental Statement. We intend to file the Supplement soon.

Mr. Myers. What is the current schedule for initiating construction on the Project?

Mr. Babbitt. We expect to begin construction as soon as practical after filing the Final Supplement to the final Environmental Statement and the signing of the Record of Decision.

Mr. Myers. Every time the schedule for the Project slips, it becomes more difficult for you to meet the deadlines contained in the 1988 Settlement Act. Do you still believe you will be able to meet those deadlines and fulfill your trust responsibilities?

Mr. Babbitt. The schedule has slipped a number of times and while meeting the exact time frames narrated in the 1988 Settlement Act will be extremely difficult, there is still a real possibility that water delivery can be initiated before the year 2005. Complete fulfillment of the settlement will likely depend upon water depletion issues within the San Juan River Basin which supplies water resources to a number of Tribes.

ENDANGERED SPECIES ACTIVITIES

Mr. Myers. You indicate in your statement that the Administration has demonstrated that the Endangered Species Act is a strong, effective conservation tool that works, but that adequate funding is needed for a responsible, credible program.

We are concerned that in some instances the Endangered Species Act has become an out of control vehicle for spending money. An example is the work being done by various agencies to try to recover endangered salmon in the Columbia and Snake River Basins. The total estimated cost of Reclamation's share of those activities went from $30,850,000 in fiscal year 1995 to $108,504,000 this year. The total estimated cost of Corps of Engineers salmon recovery work has increased from $345,000,000 in fiscal year 1994 to about $1.3 billion this year.

Are you concerned at all about the level of spending that is associated with some endangered species recovery efforts, particularly when, as in the Columbia/Snake River Salmon case, no one knows if with any degree of certainty if the measures to be undertaken will actually result in the recovery of the endangered fish?

Mr. Babbitt. I am informed that $108 million is Reclamation's total estimated Columbia/Snake River Salmon Recovery Program costs through FY 2000. We agree this is a significant expenditure and there is always a concern when the Federal government spends large amounts of money.

In the case of salmon, we know that the activities of man in conjunction with a continual decline in ocean conditions off the west coast south of Alaska have led to a serious decline in these species, and placed other Northwest anadromous species at risk. It is unfortunate that we cannot pinpoint one activity that has caused all of the problems with endangered species. Declines have most likely resulted from a host of actions, and species protection and recovery will likely involve an equally broad spectrum of activities. The life cycle of many salmon is three to five years, making it impossible to determine immediately that a given protection measure is successful. In addition, the recent multi-year drought in the Northwest in association with poor ocean conditions has probably masked the results of recovery efforts, but these efforts may well have preserved the species.

Reclamation has made huge investments in the infrastructure of the Pacific Northwest, and has the ability to improve in many small ways the health of Northwest salmon. These efforts have been underway for only a relatively few years. As we gain new information about the success of these efforts, programs will be honed to focus more directly on those actions that are most productive.

EVERGLADES

Mr. Myers. In your statement, you also highlight the Administration's efforts to restore the Everglades and the South Florida ecosystem. What is the total estimated cost of that effort?

Mr. Babbitt. The ultimate cost of the restoration efforts for the Everglades and the South Florida ecosystem is not known at this time. Future projects required to reverse the ecological damage from decades of State and Federally constructed water diversion projects remain in the planning stages. Additionally, scientific investigations that are on-going may reveal other needs which have not been addressed at this time.

While the ultimate cost may be unknown, the total estimated cost of ongoing efforts is about $2 billion, of which the Federal share is about $700 million, or 35 percent. The State of Florida and local government entities are expected to provide about $1 billion, and the sugar industry is expected to provide about $250 million. Ongoing projects include: water delivery structure modifications to allow water to be released in a way that more naturally replicates the original sheet water flow; acquisition of Federal lands in Everglades National Park and Big Cypress National Preserve; assistance to the State of Florida to acquire transition lands that are adjacent to Everglades National Park; construction of filtration marshes north of Loxahatchee National Wildlife Refuge to improve the water quality of contaminated agricultural run off; and restoration of the Kissimmee River.

In addition to these ongoing efforts, the Administration is proposing the creation of an Everglades Restoration Fund that would be funded by direct appropriations of $100 million per year over the next four years, and by an increase in the marketing assessment for Florida sugar producers which would yield $35 million per year for seven years. If approved by Congress, this proposal would provide a total of $645 million in additional funds for Federal and non-Federal land acquisition in areas that will maximize improvements to water storage, water flow and water quality, and for related ecosystem restoration projects.

Mr. Myers. Of the total, how much will be funded through Interior programs?

Mr. Babbitt. As described above, the total estimated cost of both ongoing and proposed efforts is about $2.6 billion, of which the Federal share is about $1.1 billion. The amount to be funded through Interior programs is about $640 million.

WESTERN WATER POLICY REVIEW COMMISSION

Mr. Myers. Does the budget request include funds to continue the activities of the Western Water Policy Review Advisory Commission?

Mr. Babbitt: The 1997 budget includes $800,000 for the Commission's work.

Mr. Myers. Why is funding for the Commission being provided through the Bureau of Reclamation?

Mr. Babbitt. Section 3009 of Public Law 102-575 states that financial and administrative services shall be provided the Commission by the Secretary of the Interior. It was determined that funding through Reclamation's budget was the most appropriate means.

Mr. Myers. Is there any reason why the Commission should not directly receive the funds required for it to accomplish its duties.

Mr. Babbitt. The Commission is chartered by the Department of the Interior to conduct studies called for in the statute. Interior has the lead within the Administration to coordinate with the Commission. Accordingly it should be funded through the Bureau of Reclamation program.

GLEN CANYON DAM

Mr. Myers. Mr. Secretary, I understand you just came back from Glen Canyon Dam where you participated in an experiment to create a flood through the Grand Canyon similar to the natural flows that once routinely raised water levels before construction of the dam. What is the purpose of that experiment?

Mr. Babbitt. The purpose of the Beach/Habitat-Building Flow from Glen Canyon Dam through the Glen and Grand Canyons is to test the ability of a managed high flow, or flood, to rebuild critical beaches along the Colorado River and restore backwater habitats critical to endangered fish. Periodic high flows are provided for in the Operation of Glen Canyon Dam Environmental Impact Statement which was completed in 1995. The flows also fit within the intent of the Grand Canyon Protection Act, Title 18 of P.L. 102-575 which provides for operation of the dam for environmental purposes in Glen and Grand Canyons in addition to traditional water and power generation benefits. The Beach/Habitat-Building Flow was initiated on March 22, 1996, and will be completed on April 7, 1996.

Questions submitted by the Honorable Jim Kolbe

CENTRAL ARIZONA PROJECT

Mr. Kolbe. In FY 1996, the Bureau of Reclamation received $5.8 million for costs associated with the Central Arizona Project's terminal storage segment. Of this total $3 million was specifically earmarked for land acquisition, thereby, leaving the remaining $2.8 million for terminal storage related costs. My staff was recently informed that as of January 31, 1996, expenditures associated with terminal storage totaled just under $91,000. This apparently would leave the project with a balance of over $2.7 million. The Bureau claims, however, that only $800,000 is available for the rest of FY 1996 because the bulk of the appropriated funds have been reprogrammed. Can you provide me with a detailed list of how these reprogrammed funds were spent, and under whose authority were these monies reprogrammed?

Mr. Martinez. Of the $5.85 million originally requested for Tucson Terminal Storage in FY 1996, $3 million was absorbed in underfinancing and $2.3 million was redirected within CAP to New Waddell Dam and to the Indian Distribution Division. Contract awards in late FY 1995 at New Waddell Dam for relocations above amounts estimated accounted for approximately $1,490,000 of the re-directed funds. An increase in the cost for the Salt River Pima-Maricopa Indian Community's distribution system and a delay in completion from FY 1995 to FY 1996 accounted for the $806,000 remaining re-directed funds.

The City of Tucson, as a result of a voter-passed initiative last fall, is precluded from taking direct delivery of Central Arizona Project water for municipal and industrial purposes for five years. As a result, Reclamation has deferred construction on Tucson reliability for four years. The City is currently making efforts to resume direct deliveries of Central Arizona Project water for other than M&I use. Funds in the FY 1997 budget request will be used for working with the City of Tucson on its plans for direct delivery of CAP water, working with the Tohono O'odham Nation to resolve its reliability and other outstanding issues, and gaining conceptual agreement with the Fish and Wildlife Service on endangered species issues.

None of these funds were reprogrammed to other Construction appropriation projects. The authority and definition used for reprogramming is based upon language contained in the House report to accompany the Public Works Appropriation Bill, 1957; and Senate Report 100-381 reporting on the Energy and Water Development Appropriation Bill, 1989. Both of these refer to reprogramming as funds over a base level, determined variously, that are transferred to or from another project.

Mr. Kolbe. In FY 1997, how much money does the Bureau intend to utilize and/or transfer to the Fish and Wildlife Service, either directly or indirectly, as part of the Reasonable and Prudent Alternative in the 1994 Jeopardy Opinion on the Central Arizona Project?

Mr. Martinez. The Central Arizona Project FY 1997 budget requests $500,000 to be transferred to the Fish and Wildlife Service for non-native fish eradication programs, $250,000 and native fish conservation programs, $250,000.

Mr. Kolbe. Which account within the Central Arizona Project budget is the Bureau expecting to use to pay for litigation costs associated with the lawsuit between the Bureau and the Central Arizona Water conservation District?

Mr. Martinez. No appropriations are requested. The water delivery system was put into repayment and transferred to the Central Arizona Water Conservation District for operation and maintenance in September 1993. All costs associated with administering the project, including repayment contract issues, are being funded as an operation and maintenance expense. CAP operation and maintenance expenses are funded from project revenues as directed by the authorizing Colorado River Basin Project Act, Public Law 90-537, Section 403(d) which established the Lower Colorado River Basin Development Fund.

Mr. Kolbe. In FY 1997, how much is the litigation expected to cost?

Mr. Martinez. Preliminary estimates reflected in the FY 1997 program for Central Arizona Project, Operation and Maintenance, include litigation expenses at $500,000.

Mr. Kolbe. In the Administration's FY 1997 budget submission to Congress, the Bureau acknowledges that legislation would be needed "...to provide additional appropriation ceiling ...to complete the project as authorized." The Bureau then identified four CAP divisions which have exceeded the divisional indexed appropriation ceiling. Among these was the Tucson Aqueduct. When is the authorizing legislation needed? FY 1997, FY 1998?

Mr. Martinez. Although legislation would be necessary to complete the project as authorized, the Upper Gila, Middle Gila, and Drainage Divisions have been indefinitely deferred. Therefore, additional authorization is not anticipated to be required for construction of any of the facilities funded by the Central Arizona Project FY 1997 budget request, including the Tucson Aqueduct and the Tucson Reliability Facility.

Mr. Kolbe. Since the Tucson Aqueduct has exceeded its divisional indexed appropriation ceiling does this mean that the appropriation ceiling must be raised before construction of the Tucson terminal storage project begins?

Mr. Martinez. Because the voters in Tucson passed a referendum called Proposition 200 last November, which essentially commits the city to using other sources of water for at least the next five years, Reclamation is not currently proposing construction of the terminal storage facility. Reclamation will review any possible need for additional authorization for such construction at the appropriate time.

Mr. Kolbe. It is my understanding that the cost of Tucson Reliability has increased $36 million because of increased land acquisition prices, environmental mitigation, and the design level estimate for the pumping plant and reservoir. What is the current projected cost of the terminal storage project?

Mr. Martinez. The current total estimated cost of the Tucson Reliability feature of the Central Arizona Project is $99.5 million.

Mr. MYERS. Mr. Secretary, when I said whether you are here next year or not, it wasn't personal—and I did not intend it to be that way. I know that Mr. Bevill and Mr. Chapman and I won't be back next year, but I hope by the time we leave in January 3rd of 1997 we can say that the Animas-La Plata is under construction. Any chance at all we can brag about that?

Secretary BABBITT. I will do my best.

Mr. MYERS. Well, that would be a good going away present. For all of us maybe. At least three of us. We appreciate your testimony today, and good luck.

Secretary BABBITT. Mr. Chairman, it's been a pleasure. Thank you.

Mr. MYERS. Thank you.

Ms. BENEKE. Thank you.

Mr. MYERS. We're going to stand adjourned at 2 p.m. this afternoon.

[CLERK'S NOTE.—Budget Justification Material for the Delaware River Basin Commission, the Susquehanna River Basin Commission, and the Interstate Commission on the Potomac River Basin follow:]

DELAWARE RIVER BASIN COMMISSION

BUDGET JUSTIFICATIONS, F.Y. 1997

DELAWARE RIVER BASIN COMMISSION
FY 1997 BUDGET JUSTIFICATIONS
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DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES
FY 1997 BUDGET

JUSTIFICATION OF PROGRAM AND PERFORMANCE

Activity: Federal Representation

The Delaware River Basin Commission was created by Compact between the Delaware River Basin States (Delaware, New Jersey, New York and the Commonwealth of Pennsylvania) and the Federal Government (P.L. 87-328) for the joint management of the Basin's water and related resources.

The Compact directs the Commission to develop and implement comprehensive plans, policies and programs related to the water resources of the Delaware Basin; to adopt and promote uniform and coordinated policies for water conservation, utilization and development in the Basin; and to encourage the planning, development and financing of water resources projects according to such plans and policies.

The Commission's membership consists of the Governors of the signatory States and a Federal Member appointed by the President to represent all Federal interests. The Federal Member historically has been the Secretary of the Interior. Each Governor and the President are directed to appoint a Commissioner to serve as an alternate to the Member, and each has identical powers of the Member, including the power to vote in his absence.

An appropriation of $342,000 for FY 1997 is required to finance the salaries and expenses necessary to enable the U.S. Commissioner to represent the interests of the Federal Government in the workings of the Commission. The request is $1,000 less than the FY 1996 appropriation.

In the broadest terms, the Federal Member and the U.S. Commissioner protect the national interests in the affairs and programs of the Commission. They work closely with all interested Federal departments and agencies relative to all actions by the Commission relating to the comprehensive plan and the advisability of individual water policies, programs, and projects which the Commission may either propose or consider. They serve as coordinators between the Federal agencies and the Commission to eliminate duplication and foster complementary efforts.

More specifically, the Federal representative assures:

Policies adopted by the Commission are consistent with the goals and objectives of the Federal Government;

Programs carried out by the Commission complement those of the Federal Government and involve no duplication of effort;

The 10 to 15 projects which are reviewed each month for consistency with the Commission's Comprehensive Plan also satisfy applicable Federal laws and regulations--a role which lessens the threat of litigation for the applicants;

Protection of Federal investments in the Basin; and

Protection of the Commission's Comprehensive Plan from Federal actions which could adversely affect the Plan. (Under the Compact, no Federal agency or official may take any action which substantially conflicts with an affirmative Federal vote relating to the Comprehensive Plan.)

Each of these responsibilities requires continuing vigilance. Examples of matters involving a critical role by the Federal representative include:

--Gaining Commission agreement to reassess its drought management plan--a plan which determines the amount of reservoir storage needed in the Basin to mitigate a recurrence of the drought of record. This effort began this past March 7 and will continue over the next few years. Depending on the results of the reassessment and the degree to which releases from existing storage can be optimized, as much as $200 million in capital investment could be deferred in the Basin. It is extremely doubtful this initiative would have been mounted without the analyses of Commission modeling assumptions conducted in the Federal representative's office and the ability to link the results of that effort to recent U.S. Geological Survey work regarding salinity intrusion--which until then had been narrowly viewed only for purposes of ground water management within the State of New Jersey.

--Acting as a coordinator to reconcile differences between the mathematical models which were developed by the Commission and the Corps of Engineers for different purposes. The success of this effort is essential to gain a better data base for both Commission drought management and the Corps' assessment of the environmental impact of the Delaware River Channel Deepening project.

--Working with the Corps, the States, and maritime interests to gain a financing mechanism for the Delaware Channel Deepening project.

--Brokering an agreement to end an impasse involving the three Delaware Estuary States, the two Environmental Protection Agency (EPA) regional offices, and citizen representatives with regard to a plan for the management of the Delaware Estuary. If successful, an estimated $10 to $12 million that has been invested by EPA and the States in developing the plan will be salvaged.

--Seeking a program to abate pollution of the Corps of Engineers' Blue Marsh reservoir, the cause of which is principally non-point sources outside the project's boundaries.

--Gaining recognition by the National Park Service (NPS) of the reservoir status assigned to a site in the Commission's Comprehensive Plan which is now being studied for possible Federal scenic river status.

--Protecting the Federally-designated scenic river segments that have already been included in the Commission's Comprehensive Plan from point and non-point source pollution originating from both outside and within park boundaries.

--Assuring the results of the 5-year fisheries studies regarding the Salem nuclear electric generation plant satisfy the concerns of the Federal fishery agencies.

--Working to resolve difference between the two EPA regional offices with regard to a toxics management program that is being developed by the Commission.

--Acting as a conciliator in resolving concerns of the U.S. Fish and Wildlife Service about the possible existence of endangered species at the Corps' Upper Delaware Ice Jam Prevention Project. This is a project involving Commission sponsorship, the NPS, three States and several communities. Resolution of the endangered species issue allowed the project to move to completion just in time to provide protection from the floods which occurred this past January. The project would have been delayed had it not been for the objectivity that comes from a Federal representative who has no affiliation with any agency and an ability to see solutions from a broad perspective.

--Seeking inclusion of the Federally-designated Maurice Scenic River into the Commission's Comprehensive Plan.

--Acting as a coordinator regarding the Corps' new wetlands protection program and the critical wetlands of Pennsylvania's Pocono area because of their importance to upper basin water quality and stream flow maintenance.

--Assuming a leadership role in getting the Commission to set program priorities, update Commission computer capability, and again a Geographical Information System.

--Gaining more in-depth public participation regarding Commission policies and major projects being considered by the Commission.

Only within the Delaware and Susquehanna River Basin Commissions does there exist a formal focus of the myriad Federal water functions. Those Commissions alone have a Federal representative capable of resolving differences between Federal agencies that have widely disparate and often conflicting missions and of integrating

Federal projects into a truly comprehensive plan. No group of States working jointly can fulfill these functions, nor can any single Federal agency or group of Federal agencies. It is the role of the Federal representative which precludes the former costly and fragmented Federal approach to water resources management and makes the Federal Government a principal beneficiary of the Commission.

Over the years, the Federal Government's presence as a signatory party has played a key role in the other members' willingness for compromise to promote interstate comity. That willingness is the result of the equal partnership of the members. Experience has demonstrated that compromised concessions are secured only when all parties are at the table, especially the Federal Government. Such compromises will become more and more exacting in the future as our water resources become more and more scarce, underscoring the need for continuation of the present Federal role in the Commission.

DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Appropriation/Activity	Budget Authority 1995 Actual	 1996 Estimate	 1997 Estimate
Salaries and Expenses....................	$342,000	$343,000	$342,000

SUMMARY OF INCREASES/DECREASES, 1997

	1996 Estimate	1997 Estimate	Increase (+) or Decrease (-)
Federal Representation........................	$343,000	$342,000	-$1,000

To provide for the salaries and expenses of the United States Commissioner.

JUSTIFICATION

Federal representation: Fiscal Year 1996, $343,000; Fiscal Year 1997, $342,000; decrease $1,000. The decrease consists of:

Increase (+) or Decrease (-):

Amount	Positions	Total Program	Total Positions	Explanation
-$1,000	--	$342,000	--	To continue to provide for the cost of operation of the Commissioner's office.

DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES

For expenses necessary to carry out the functions of the United States member of the Delaware River Basin Commission, as authorized by law (75 Stat. 716), $342,000.

Program and Financing (in thousands of dollars)

Identification code 46-0100-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
Obligations by program activity:				
10.00	Total obligations..................	298	343	342
Budgetary resources available for obligation:				
22.00	New budget authority (gross).......	342	343	342
22.30	Unobligated balance expiring.......	(44)	0	0
23.90	Total budgetary resources available	298	343	342
23.95	New obligations............................	-298	-343	-342
Change in unpaid obligations:				
72.40	Unpaid obligations, start of year:	12	28	34
73.10	New obligations............................	298	343	342
73.20	Total outlays (gross)......................	-286	-337	-342
73.40	Adjustments in expired accounts.....	4	0	0
74.40	Unpaid obligations, end of year......	28	34	34
Net budget authority and outlays:				
89.00	Budget authority.............................	342	343	342
90.00	Outlays (net)..................................	286	337	342

DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Object Classification (in thousands of dollars)

Identification code 46-0100-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
	Personnel compensation:			
11.1	Full-time permanent	202	201	201
11.3	Other than full-time permanent	0	3	3
11.9	Total personnel compensatior	202	204	204
11.2	Personnel benefits: Civilian	24	53	53
21.0	Travel and transportation of persons	7	12	12
23.1	Rental payments to GSA	26	28	28
23.3	Communications, utilities, and miscellaneous charges	2	4	4
24.0	Printing and reproduction	0	3	3
25.2	Other services	1	1	1
25.3	Purchases of goods and services from Government accounts	29	35	35
26.0	Supplies and materials	1	2	2
31.0	Equipment	6	1	0
99.9	Total obligations	298	343	342

DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Personnel Summary

Identification code 46-0100-0-1-301	1995 Actual	1996 Estimate	1997 Estimate
Total number of full-time permanent positions................	2	2	2
Total compensable workyears:			
Full-time equivalent employment.....	2	2	2
Ayerage ES salary..........................	$115,700	$115,700	$115,700
Average GS grade..........................	14.90	14.10	14.10
Average GS salary..........................	$74,765	$79,200	$81,217

DELAWARE RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Detail of Personnel Summary

Identification code 46-0100-0-1-301	1995 Actual	1996 Estimate	1997 Estimate
Special positions at rates equal to or in excess of $115,700:			
U.S. Commissioner	1	1	1
GS/GM-14	1	1	1
Total permanent positions	2	2	2
Unifilled positions, end of year	--	--	--
Total permanent employment, end of year	2	2	2

DELAWARE RIVER BASIN COMMISSION
CONTRIBUTION TO DELAWARE RIVER BASIN COMMISSION
FY 1997 BUDGET

JUSTIFICATION OF PROGRAM AND PERFORMANCE

The Delaware River Basin Commission was created by the Delaware River Basin Compact (P.L. 87-328) among the States of Delaware, New Jersey and New York, the Commonwealth of Pennsylvania and the Federal Government. The purpose of the Compact is to enable the signatory parties to participate jointly in the conservation, utilization, development and control of water and related resources of the Delaware River Basin.

Under the terms of the Compact, the Commission is directed to develop and implement comprehensive plans, policies and programs relating to the water resources of the Basin; to adopt and promote uniform and coordinated policies for the conservation, control and development of the water resources of the Basin; and to encourage the planning, development and financing of water resources projects according to such plans and policies.

The members of the Commission are the Governors of the signatory states, ex officio, and a Federal member appointed by the President of the United States. The Compact also provides for the appointment of a Commissioner (alternate member) by each Governor and the President who has the identical powers of the member, including the power to vote in his absence.

Authority for the United States' participation in the current expense budget of the Commission is provided under Section 13.3 of the Delaware River Basin Compact (P.L. 87-328, approved September 27, 1961).

The FY 1997 budget requests $534,000 to cover the United States' share of the $3,294,500 current expense budget of the Delaware River Basin Commission. The proposed state shares are Pennsylvania, $688,000; New Jersey, $688,000; New York, $481,500; and Delaware, $344,000. Although the Commission's budget continues to reflect the cost of implementing the uniquely rigorous standards needed to preserve the high quality of water which led to the Federal establishment and subsequent quarter billion dollar Federal investment in the Upper and Middle Delaware Scenic and Recreational Rivers, the Federal contribution reflects only a 19.5 percent share.

The FY 1997 budget request for the Commission totals $3,294,500, a decrease of $32,000 from the FY 1996 adopted budget of $3,326,500. This decrease is the result of small increases in numerous accounts offset by larger reductions in building services, fringe benefits and equipment rental. The budget will provide for a reduced staff of 37.

It is recognized that the Federal Government, as well as many states, are having budget difficulties, and that the value of any and all programs should be scrutinized as to their continuation. For FY 1997, all four states in the Delaware Basin will fully fund their "fair share" contributions to the Commission in spite of severe cutbacks in the environmental programs of three of the four states. Any suggestion that the states fund the Federal share would be looked upon by the States as yet another unfunded Federal mandate.

Congress, in passing the Compact, agreed that the Federal Government would jointly exercise with the States their water resources "powers of sovereignty in the common interests of the people of the region." Until Congress acts to remove the U.S. Government from the Compact, it seems logical that it should provide this modest fair share sum of $534,000 for the tremendous value received. This value is in both dollars, and the rendering of streamlined public service. The dollar benefits to the U.S. Treasury are direct, enhance tax dollar flow, and avoid drought and flood related cost outlays.

Maintaining a small but effective Commission staff has provided other Federal agencies a vehicle to receive data and recommendations important to their decision-making processes, at a cost savings. The Commission has completed flood-plain mapping for H.U.D., F.E.M.A., and the U.S. Army Corps of Engineers (Corps) thereby avoiding the hiring of additional Federal employees with attendant salaries, benefits, and retirement costs. Recently, the Commission analyzed the environmental impact of salinity intrusion from a proposed dredging project, the spoils of which were to be used to extend Philadelphia's airport runway. This job was done at no cost to the Federal Government and was possible because of the Commission's core capabilities. The data, recommendations and conclusions provided by the Commission resulted in significant cost savings to the Corps and the city.

Another example of direct cost savings is the Commission's role as the single, non-Federal sponsor of Corps' projects such as the Beltzville and Blue Marsh reservoirs. This role eliminates the paper morass resulting if the Corps had to sign individual contracts and collect fees from about 200 different municipal and industrial water supply users. The Commission has always met its financial obligations to the Federal Government regarding principle, interest, and O&M and on time.

The Commission, because of its powers and authorities contained in the Compact, has a major role in determining economic development. Economic development not only provides an improved tax base within the states, but the construction of new projects and their continued operation generated tremendous Federal income tax revenues for the U.S. Treasury. The Commission's rules, regulations, standards, and policies which serve as the yardstick to project approval have been developed with broad-spectrum public input--environmental, social and economic. The Commission's Basin Water Code is applicable without regard to political boundary, as mandated in the Compact. This has eliminated the problem of interstate squabbles over environmental regulations and in some cases negated costly and time-consuming litigation.

The value of the Commission's environmental/economic approach to new development over the past 10 years has resulted in the construction of over 1,000 projects costing over $4 billion. Because of the even-handed economic/environmental process of doing business, these projects were not built elsewhere, such as in Mexico or Canada. Therefore personal and corporate income taxes are paid to the U.S. Treasury--something the Federal Government has every reason to continue to support.

Another example of enhancing Federal tax flow is Commission actions taken in emergencies such as droughts. Last fall, the Commission provided emergency water supply approvals to water-short users. One industrial plant employing 2,800 people would have shut down for 4 weeks without Commission assistance. Assuming the lowest income tax rate of 15 percent and average annual taxable income of $23,000, this one action prevented a loss of $800,000 to the U.S. Treasury in personal income tax revenue, and probably much more in corporate tax revenues. An important feature of this action is that the Federal Government has a vote in making these decisions of water allocations - surface or ground. The Delaware and the Susquehanna River Basins are the only regions of the country where the U.S. Government has a joint hand in water allocation, which provides a voice in protecting and enhancing the myriad Federal interests.

The Commission's plans and programs in drought and flood operations have and continue to save the Federal Government millions of dollars in avoided costs over the past 34 years. By developing and operating an effective drought operating plan, the U.S. Government has not had to "bail out" the region during three major drought emergencies in contrast to other areas of the Nation. The Commission's drought operating plan is fairly complex and even provides for the revision of rights and responsibilities in a 1954 U.S. Supreme Court Decree apportioning the waters of the Delaware. Under the Compact, the Commission has the right to amend that Decree during emergencies, and the Federal representative has a vote in that decision-making process. The Commission has temporarily modified that Decree over 15 times in the past 15 years under the Compact. If the Congressionally-approved Compact were not in place, the Federal cost of the water battles to be handled by the Federal courts would be considerable.

With regard to flood control, a vital mission of the Commission is to provide for cooperative planning and action by the signatory parties and their agencies. Recently, the Commission held a meeting of fourteen different agencies and organizations involved in some aspect of flood control even though those present had different geographical areas of responsibility. This was possible because of the Commission's management focus on a basinwide or watershed approach as is now being emphasized at the Federal level. The outcome of that one meeting resulted in eleven recommendations which are already in the process of implementation and which will prevent or reduce the adverse impact of flooding in the Delaware Basin, and will reduce the amount of Federal "bailout" should a really big flood occur in the future.

As to avoided costs regarding a particular flood event, the Commission's non-Federal sponsorship of the Corps' Port Jervis (N.Y.) Ice Jam Flood Prevention Project is a classic example. The Corps may never have built the project if it had to deal individually with five different municipalities and three states. They only needed one non-Federal sponsor - the Commission.

Obtaining necessary permits and approvals for this project, which probably saved the Federal Government up to $60 million in "bail-out" costs during this January's flood, could not have been achieved without a neutral Federal Commissioner's office. The NPS, U.S. Fish and Wildlife, and the Corps all had involvement, and often different viewpoints. The value of an independent or neutral U.S. Commissioner to reconcile the often diverse Federal agency views on any proposed action before the Commission is absolutely vital. It is of great importance to craft a single Federal position on projects, rules, and policies so that timely and necessary decisions can be made.

There are many other examples which could be cited dealing with reconciliation of diverse Federal agency views related to such things as: water quality, fish and wildlife, wetlands, flood plains, minimum stream flows, navigation, national parks, and water supply.

Since Congress has mandated that the U.S. Government be a party to the Delaware River Basin Compact and share its sovereignty with the four states in water resources management, having a neutral Federal presence, not a person representing any single agency, has been invaluable in defining the Federal position in exercising its sovereign's vote.

In general, the Commission has been the model for water resources management in the country.

It has an ambitious water conservation program to reduce water demand which is an integral component of its strategy to manage water supplies in the four-state river basin. The program, which is recognized both nationally and internationally, has resulted in significant cost savings, environmental protection and improved drought preparedness. Among the results:

-Unaccounted-for water in the Delaware River Basin was reduced about 40 million gallons per day (mgd) between 1989 and 1993--a 15.7 percent cutback over a 4-year period. The Commission projects an additional savings of 42 mgd to 70 mgd by the year 2020 through implementation of its water conservation performance standards for plumbing fixtures and fittings. This reductions should save or defer from $250 million to $400 million in additional capital costs for water supply and waste water treatment facilities--projects which have been heavily financed by the Federal Government.

The Commission recently adopted a regulatory package to protect the high water quality in two "scenic" reaches of the Delaware River from Hancock, N.Y., 125 miles downstream to the Delaware Water Gap. These river reaches were added to the National Wild and Scenic Rivers System by Congress in 1978. Water quality in this portion of the river is threatened by urbanization in a three-state, 4,000 square mile drainage area which is within several hours drive of about 20 percent of the U.S. population.

In crafting its regulations, the Commission worked closely over an 8-year period with the NPS, the EPA, State regulatory agencies, and business and environmental groups. Although the regulations are on the books, considerable time and money continue to be invested by Commission staff to ensure the regulations are successfully implemented. At stake are two popular federal recreation areas which attract close to 5 million visitors each year and annually pump some $20 million back into the regional economy.

The Commission also is engaged in a comprehensive program with the Federal Government and Basin States to adopt regulations governing the discharge of toxic pollutants to the tidal Delaware River. The regulatory package was drawn up in response to 1987 amendments to the Federal Clean Water Act which required states to designate water quality criteria for toxic pollutants and identify those stretches of waterways where the criteria were being exceeded. These criteria, policies and procedures are being cooperatively developed with not only agency input, but considerations from environmental groups, municipalities and eleven major industries.

It should be underscored that any proposal to withdraw all funding for the Delaware River Basin Commission raises serious and unprecedented legal issues that could result in protracted and expensive litigation for the Federal Government and the member states.

The United States is a signatory party to the Delaware River Basin Compact as a result of legislative enactments approved by the Judiciary Committees of the Congress and thereafter enacted into law. Although the Compact preserves the power and the right of the Congress to withdraw the Federal Government as a party to the Compact, any decision to withdraw requires a revision of the enabling legislation which authorized participation of the Federal Government in these Compacts in the first instance.

The mere withdrawal of all Federal funding does not address nor does it resolve the fundamental question as to whether the Federal Government, by such action, has actually withdrawn from all participation in the Compact. Such action leaves in effect the provisions of the Compact adopted by the Federal Government and, more importantly, those provisions specifically inserted into the Compact by the Congress.

For example, Federal law still empowers the President's representative; i.e., the Secretary of the Interior, to serve and vote on proposals and to bind all Federal agencies in the absence of a dissenting vote. The status of Section 15.1 of the Compact, which sets forth numerous Federal reservations as to Compact provisions, will require litigation to resolve. The provisions of 15.1(b), as one example, now limits the ability of the Commission to impose charges for water withdrawals or diversions from the Delaware River Basin which were lawful in 1961 when the Compact as approved by the Congress. This immunity from water charges affects most major water users within the Basin. Does the withdrawal of Federal funding permit the extension of Commission water charges to pre-1961 users and is this what Congress intends? The status of such water withdrawals in terms of Commission charges almost certainly will precipitate legal dispute.

The difficult questions posed by merely terminating funding can be settled by proper amendatory legislation. Whether the Congress wishes to totally withdraw from the Compact or merely modify the extent of the Federal Government's participation, these issues should first be addressed in the regular legislative process. Appropriate decisions with regard to funding should follow the resolution of these issues. A failure to address these issues legislatively may make illusory any savings to the Federal Government in the short-term and could lead to results imposed by the courts that do not reflect the intent or the desires of either the Congress or the member states.

The Supreme Court in Texas v. New Mexico, 482 U.S. 124 (1987) and earlier decisions such as West Virginia ex rel. Dwyer v. Sims, 341 U.S. 22 (1951) and Petty v. Tennessee-Missouri Bridge Commissions, 359 U.S. 275 (1959), clearly establish the binding effect of Compact provisions upon all members and the obligation of the members to comply with those provisions. It is clear from these Supreme Court decisions that when a Compact is approved by Congress it becomes a law of the United States. While the Congress has the right to change the Compacts, the mere withholding of funding required under the Compacts does not constitute such a change. The Compacts themselves must first be revisited by the Congress and the basic policy decisions presented by withdrawal of participation must be addressed and resolved.

The Delaware River Basin Compact mandates activities and provides discretionary authority for a broad range of water resources planning, design, construction, and operating functions. In FY 1997, the mandated activities will be continued, and essential discretionary planning and operating functions will be performed.

Mandated Activities:

The Compact requires (1) the preparation and maintenance of an up-to-date Comprehensive Plan, (2) the issuance of an annual Water Resources Program, (3) the review of projects having a substantial effect on the water resources of the Basin, (4) the administration of uniform and coordinated standards and procedures, and (5) the publication of an annual report.

1. Comprehensive Plan: In FY 1997, the Comprehensive Plan will continue to be revised to include all public water resource projects as well as any additional Commission decisions flowing from the Level B Study and the "Good Faith" negotiations. This will require public hearings before the Commission on a series of issues.

2. Water Resources Program: The Water Resources Program will be updated, subjected to public hearing, modified as appropriate, approved by the Commission, and issued. The Water Resources Program includes a systematic presentation of (1) the quantity and quality of water resources needs, (2) the projects required to satisfy these needs, and (3) a separate statement of the projects proposed to be undertaken by the Commission during the ensuing six years. [Projects are defined by the Compact as "any work, service or activity," as well as water-related facilities or additions to such facilities.]

3. Project Review: Water, or water-related, projects proposed for implementation by any person, corporation or governmental authority will be reviewed for conformance with the Comprehensive Plan. These reviews, conducted in accordance with the duly issued Rules of Practice and Procedure, will result in recommended courses of action by the Commission.

4. Uniform Standards and Procedures and Their Enforcement: Uniform standards and procedures will be established for the evaluation and determination of project priorities pursuant to the requirements of the Comprehensive Plan. Uniform and coordinated policies for water conservation, use, and management will be promoted. Appropriate enforcement action(s) will be taken, where necessary, to protect the provisions of the Comprehensive Plan and any standards, regulations, or docket decisions duly promulgated by the Commission.

5. Annual Report: A report on the activities and finances of the Commission for the calendar year will be prepared, published and distributed to the legislative bodies of the signatory parties and the public.

Planning Activities:

Planning programs will be underway in FY 1996 relating to (1) ground water, (2) water demands and conservation, (3) pollution control, and (4) fish, wildlife and Activities.")

Ground Water: Study recommendations stemming from the Basinwide ground water investigation will continue to be reviewed for inclusion within the Comprehensive Plan, following public hearings during FY 1996. Well registration and source metering by the Basin states will be continued, and a water-use data base will be updated for the Basin.

In FY 1997, it is expected that the Commission will implement amendments to the Southeastern Pennsylvania Ground Water Protected Area regulations in follow-up to the water management modeling study completed in FY 1995 for the Neshaminy Creek basin. These amendments, which are scheduled to be developed during FY 1996, would seek to better manage ground water withdrawals with updated recharge rates developed by the study. The amendments would be developed by the Commission's Ground Water Advisory Committee.

It is also anticipated that modeling efforts for additional watersheds would be initiated in FY 1997. Candidate watersheds include:

- Delaware/Pennsylvania - Christina River, Red Clay Creek, White Clay Creek.

- Pennsylvania - Crum Creek, Darby Creek, Pennypack Creek, Perkiomen Creek, Ridley Creek, Skippack Creek, Wissahickon Creek.

- New Jersey - Big Timber Creek, Cooper River, Little Ease Run, Little Timber Creek, Mantua Creek, Newton Creek, Pennsauken Creek, Scotland Run, Squankum Branch, Woodbury Creek.

Water Demands and Conservation: The basic elements of water demand projections (i.e., population, unit water uses, economic base, etc.) will be compiled and continuously updated utilizing the most recent census and economic data. Inventories of water withdrawals and depletive use will be updated annually with information provided through the Commission's well registration (Resolution No. 85-19) and source metering (Resolutions No. 86-12 and 86-13) programs. By FY 1997, a consistent data entry format for basinwide monthly water use will be implemented for all users over 100,000 gallons per day (gpd).

The Commission will continue staff efforts to ensure compliance with its numerous water conservation regulations. The Commission has continuing long-term policies to reduce water use throughout the Basin through conservation efforts and is requiring maximum feasible efficiency in the use of water by new and existing water users (Resolution No. 76-17, Water Code 2.1.1, 2.1.2, 2.1.3). Resolution No. 81-9 specifies water conservation policies applicable to all new water supply projects reviewable by the Commission under Section 3.8 of the Compact. Resolution No. 87-6 requires purveyors that distribute in excess of 100,000 gpd during any 30-day period to undertake leak detection and repair (LD & R) plans. In FY 1997, the Commission staff will continue to measure LD & R program effectiveness through monitoring of unaccounted for water for all water systems distributing 100,000 gpd or more. Resolution No. 87-7 requires those purveyors to install, or require to be installed, water meters at all service connections. In that April 22, 1997 is the deadline for compliance with the universal service metering requirement, it is anticipated that some additional enforcement action may be required in FY 1997 to secure full compliance.

Resolution No. 88-2 (Revision 2) sets water conservation performance standards for plumbing fixtures and fittings. It requires that low-consumption water closets (maximum 1.6 gallons/flush) be installed in new construction and renovation in the Basin effective July 1, 1991. Resolution No. 92-2 requires purveyors seeking Commission approval under Section 3.8 of the Compact for a new or expanded water withdrawal to include as part of the application a water conservation plan. Purveyors withdrawing 1 mgd or more are required to include in the conservation plan an evaluation of the feasibility of implementing a water conservation pricing structure and billing program if one has not been adopted. The Commission will continue to sponsor technology transfer sessions with major industrial and commercial groups to promote water conservation in those sectors.

Pollution Control: The multifaceted pollution control program, funded by appropriations from the states and grants from the Federal Government, will continue in FY 1997.

1. Allocation of Estuary Waste Assimilative Capacity. The reallocation of the assimilative capacity of Zones 2 through 5 of the Delaware River Estuary awaits development, calibration and verification of a new model for the main water body as well as for the mixing zones around points of discharge. Reallocations will also require notices of preliminary allocations, hearings on objections before hearing panels, reports to the Commission by the panels, and Commission decisions. An ongoing four task contract for consulting services for upgrading water quality modeling for the Delaware River Estuary will continue in FY 1997. FY 1997 activity will encompass completion of a new model; initiation of linking combined sewer overflow models with the new model; and initiation of an adaptation of a near-field model for combined sewer overflow mixing zones. Initial allocations for several toxic pollutants including volatile organic chemicals and chronic toxicity are expected to be formally established for selected NPDES permitees. These allocations will be transmitted to the state permitting agencies for translation into permit limitations. Preliminary allocations for selected metals will also be developed.

2. Water Quality Data Collection. The Commission will compile and make available to interested parties data on the quality of Basin surface and ground waters, and in the estuary, data regarding the edible tissue of resident fish. The Commission will act as the cooperating agent with the U.S. Geological Survey for some monitors in the estuary. The annual monitoring program for the Delaware Estuary and Bay, selected major tributaries, selected major dischargers, and fish tissue will be continued and re-evaluated in FY 1997. Operation of the water quality

and ecological monitoring program in the upper Basin, including the Delaware Water Gap National Recreation Area and the Upper Delaware Scenic and Recreational River, will be continued in FY 1997 with the NPS. This program was redesigned in 1995 to better conform to the needs of "Special Protection Waters" regulations governing these scenic waterways.

3. Water Quality Standards. The Commission will continue to develop and adopt interstate water quality standards that are consistent with Federal and State laws and the water management plan of the Basin.

During FY 1993, the Commission adopted its "Special Protection Waters" classification which provides anti-degradation policies for the Middle and the Upper Delaware Scenic and Recreational Rivers. Non-point source control regulations were adopted in FY 1994. Implementation will continue in FY 1997. This includes a cooperative effort with the NPS to develop a watershed planning program using water quality models and a geographical information system (GIS).

The Commission will continue the implementation of the toxics management strategy for the Delaware Estuary in FY 1997. Revised water quality standards for toxic pollutants should be adopted in FY 1996. Efforts will also begin on identifying non-point sources of toxic pollutants, especially sources of PCBs and chlorinated pesticides.

4. Delaware Estuary Program. The Commission, along with the Basin States, EPA Regions II, III and headquarters, the Army Corps of Engineers, NOAA, and the U.S. Fish and Wildlife Service will actively participate in the implementation of the Comprehensive Conservation Management Plan for the Delaware Estuary. The Commission staff will continue to serve on the appropriate committees, and the Commission will continue to be actively involved with the Toxics Advisory Committee and the Regional Information Management Service (RIMS) program.

5. Coordination. The interstate aspects of state water quality programs will be coordinated by the Commission.

6. Combined Sewer Overflow Study. (See discussion regarding Allocation of Estuary Waste Assimilation capacity in Task 1 above).

7. The Commission will continue to review draft NPDES discharge permits for discharges to Basin waters with regard to Commission standards and wasteload allocations. Primary emphasis is on discharges with major impact on Basin waters.

8. The Commission will continue the 5-year Christina Basin study initiated in FY 1995, to develop point and non-point source management alternatives.

Fish and Recreation: The Commission will continue to assist the U. S. National Park Service in implementing the Upper Delaware Scenic and Recreational River

Management Plan and the Water Resources Management Plan for the Delaware Water Gap National Recreation Area. This activity will be in cooperation with the States and counties bordering the river.

The Commission will continue to review projects subject to its jurisdiction which would impact upon fish and recreation resources within its Comprehensive Plan. Liaison and coordination with fish management agencies will continue with respect to issues pending before the Commission through the project review activity.

Operation Activities:

Water Sales: The Commission will administer the water sales program adopted pursuant to Resolution Nos. 72-4 and 74-6. This program involves execution of contracts with major water users and the assessment of charges against minor water users, under the Commission's self-invoicing arrangement. The legal entitlement program as it relates to municipal and industrial withdrawals of surface water was completed in FY 1975. In FY 1997, new water sales contracts will be negotiated, current contracts will be monitored and self-invoicing procedures spot-checked. Field checking of water users' facilities will be carried out, as staff time permits.

Computerization of water use payments will aid in tracking of overdue and under payments. The water sales payments have increased with additional users and loss of entitlements due to sales of companies and will cover the additional repayment required for future water use at Blue Marsh Reservoir and increases in the costs of operation and maintenance by the Corps of Engineers for the Beltzville and Blue Marsh Reservoirs.

Computer Modeling: Computer model simulations of salinity intrusion and reservoir operations will continue to be made as requested by the Flow Management Technical Advisory Committee in its evaluation of reservoir operation during drought conditions. Daily Flow Model simulations will also be made to assist the Commission staff with evaluation of water allocation requests on the main stem Delaware and major tributaries.

Salinity modeling will also continue to be necessary in order to predict the effect on chlorides in the estuary due to increased depletive water use and sea level rise. Sea level data will be updated periodically to assess sea level trends.

An investigation of the reliability of the DYNDEL estuary water quality model funded by the City of Philadelphia concluded that the model has the tendency to under predict dissolved oxygen concentrations compared to observed values. A consultant, retained by the Commission to evaluate the model, has recommended a new model be developed for the estuary. Concurrently funding alternatives are and will be investigated for state pass-through under Sections 205(j)(l) and 604(b) of the Clean Water Act.

The Commission staff is using the computer program and GIS products developed by the U.S. Geological Survey for the Neshaminy Creek Basin in the Ground Water Protected Area in Southeastern Pennsylvania. Work will continue to update the data base. The water use assessment results will provide a basis for improved water supply management in the Neshaminy Basin. Additional modeling efforts will be initiated in FY 1997.

As part of the program to monitor depletive use in the Basin, a database system installed on the Commission computer is being used to store continuing collection of water use data from surface and ground water users. This comprehensive database will also provide the basis for the water charging system to pay for the financing of any needed future reservoir storage and also monitor changes in depletive water use.

Approval was given to acquire a GIS. It is anticipated that the GIS will be secured in FY 1996 and a GIS Manager will be on board.

Flood Loss Reduction: The Commission's primary objective in flood loss reduction is to improve emergency communication through: (1) production of flood stage forecast maps and profiles; (2) promotion of efforts by the Corps of Engineers, Philadelphia District, to install automated flood warning systems in the Lehigh and Assunpink watersheds; (3) promotion of full utilization by all basin counties of the Local Flash Flood Warning assistance provided by the National Weather Service; and (4) collection and distribution of flood forecast information to the public when required.

The Commission is coordinating with the Interstate Watershed Committee for the Upper Christina River in its efforts to develop a local flash flood warning program in the vicinity of Newark, Delaware.

Efforts will continue to increase flood warning capabilities in other portions of the Delaware Basin. Use of available flood warning products varies by county. Funding is limited, and emphasis will be placed on using existing river forecasting and stream stage reporting services as fully as possible. Where possible, the Commission staff will work with the states and counties to establish additional local flood warning systems. The staff will also continue to coordinate with state and county officials to increase the knowledge of available flood warning services and to work in developing additional flood stage forecast maps for the flood prone areas.

Future Water Supply: The Commission has embarked on a 2 1/2 year reassessment of the amount of storage needed to mitigate droughts in the Basin using data recently developed by the U.S. Geological Survey with regard to the impact of salinity intrusion on New Jersey's Potomac-Raritan-Magothy Aquifer.

Ground Water Protected Area: Under contractual arrangements with the State of Pennsylvania, the Commission will continue to administer special regulations regarding the use of ground water in portions of Berks, Bucks, Chester, Lehigh and Montgomery Counties, Pennsylvania. These special regulations apply to the Commission's designated "Southeastern Pennsylvania Ground Water Protected Area." In addition to meeting all current requirements of the Comprehensive Plan and Rules of Practice and Procedures, applicants seeking permission to withdraw· more than 10,000 gallons per day are required to demonstrate that the requested use will not (1) render supplies in the underground Basin unreliable, (2) cause long-term progressive lowering of water levels, (3) cause water quality degradation, (4) result in permanent loss of storage capacity or (5) substantially impact perennial streams. Such applicants are required to take a number of conservation measures and file a drought emergency plan with the Commission. All existing users of more than 10,000 gallons per day were required to register their wells with the Commission. In FY 1997, it is expected that the Commission will implement amendments to these special regulations in follow-up to the water management modeling study completed in FY 1995 for the Neshaminy Creek Basin.

DELAWARE RIVER BASIN COMMISSION
FY 1997 OPERATING BUDGET

Revenues:	FY 1995 Budget Adopted	FY 1996 Budget Adopted	FY 1997 Budget Request
Signatory Parties:			
Delaware	$300,000	$344,000	$344,000
New Jersey	$609,000	$688,000	$688,000
New York	$427,000	$481,500	$481,500
Pennsylvania	$609,000	$688,000	$688,000
Federal Government	$478,000 *	$428,000 *	$534,000
Miscellaneous:			
Other	$285,000	$274,000	$319,000
EPA Water Quality Grant	$240,000	$240,000	$240,000
General Fund-Working Capital	$105,000	$60,000	$0
TOTAL ALL SOURCES	$3,053,000 *	$3,203,500	$3,294,500
Expenditures:			
Personnel Services	$1,775,000	$1,947,000	$1,973,000
Special & Contractual Services	$203,000	$258,000	$266,000
Services Other Than Personnel	$88,500	$94,000	$103,000
Supplies & Materials	$68,500	$73,000	$80,000
Space	$131,000	$202,000	$148,000
Communications	$54,000	$52,000	$54,000
Travel	$30,000	$31,000	$31,000
Maintenance & Replacement	$175,000	$88,000	$96,200
Equipment Purchase or Rental	$21,000	$22,000	$14,000
Grants, Fringe Benefits & Other	$517,000	$559,000	$529,300
TOTAL EXPENDITURES	$3,063,000 *	$3,326,000	$3,294,500

* The total amounts for revenues and expenditures are not the same because the Commission formally adopted a budget previous to the enactment of the FY 1996 Energy and Water Development Appropriations Act. Also, the amount of the FY 1995 Federal Contribution was $10,000 higher in the Commission's adopted budget.

DELAWARE RIVER BASIN COMMISSION
CONTRIBUTION TO DELAWARE RIVER BASIN COMMISSION

COMPARISON OF FUNDING

	Budget Authority		
Appropriation/Activity	1995 Actual	1996 Estimate	1997 Estimate
Contribution to Delaware River Basin Commission.....................	$478,000	$428,000	$534,000

SUMMARY OF INCREASES/DECREASES, 1997

	1996 Estimate	1997 Estimate	Increase (+) or Decrease (-)
Contribution to the Commission.................	$428,000	$534,000	+$106,000

To provide for the 1997 Federal share of the annual expenses of the Delaware River Basin Commission.

JUSTIFICATION

Contribution to the Commission: Fiscal Year 1996, $428,000; Fiscal Year 1997, $534,000; increase $106,000. The increase consists of:

Increase (+) or Decrease (-):

Amount	Positions	Total Program	Total Positions	Explanation
+$106,000	--	$534,000	--	Federal contribution to 1997 current expense budget of the Delaware River Basin Commission.

DELAWARE RIVER BASIN COMMISSION
CONTRIBUTION TO DELAWARE RIVER BASIN COMMISSION

For payment of the United States share of the current expenses of the Delaware River Basin Commission, as authorized by law (75 Stat. 706, 707), $534,000.

Program and Financing (in thousands of dollars)

Identification code 46-0102-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
Obligations by program activity:				
10.00	Contribution to the Commission (object class 41.0)........................	478	428	534
Budgetary resources available for obligation:				
22.00	New budget authority (gross).......	478	428	534
23.95	New obligations............................	-478	-428	-534
Change in unpaid obligations:				
73.10	New obligations............................	478	428	534
73.20	Total outlays (gross).....................	-478	-428	-534
Net budget authority and outlays:				
89.00	Budget authority.............................	478	428	534
90.00	Outlays (net)...................................	478	428	534

SUSQUEHANNA RIVER BASIN COMMISSION

BUDGET JUSTIFICATIONS, F.Y. 1997

SUSQUEHANNA RIVER BASIN COMMISSION
FY 1997 BUDGET JUSTIFICATIONS

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CONTRIBUTION TO SUSQUEHANNA RIVER BASIN COMMISSION
FY 1997 BUDGET

JUSTIFICATION OF PROGRAM AND PERFORMANCE

Activity: Federal Representation

The Susquehanna River Basin Commission (SRBC) was created by Compact (Public Law 91-575) among the States of Maryland and New York, the Commonwealth of Pennsylvania, and the Federal Government. The purpose of the Compact is to enable the signatory parties to participate jointly in the conservation, utilization, development, and control of water and related resources in the region of the Susquehanna River Basin.

Under the terms of the Compact, the Commission is directed to develop and implement comprehensive plans, policies, and programs relating to the water resources of the Basin; to adopt and promote uniform and coordinated policies for water conservation, control, and development in the Basin; and to encourage the planning, development, and financing of water resources projects according to such plans and policies.

The Commission's membership consists of the Governors of the signatory states, or their appointed designees, and a Federal Member appointed by the President to represent all Federal agencies and who historically has been the Secretary of the Interior. In addition, each Governor and the President are directed to appoint a Commissioner to serve as an alternate to the Member, with identical powers of the Member, including the power to vote in the absence of the member.

The duties of the Federal Member and the U. S. Commissioner are to represent the interest of the Federal Government on the Commission and to protect the national interests in the water resource development programs for the Susquehanna River Basin. To accomplish this, the Member and the Commissioner must work closely with all interested Federal departments and agencies, serving as coordinators to assure that Federal interests are fully informed regarding all water resources development programs for the Susquehanna River Basin. They also represent such Federal interest in all actions by the Commission relating to the comprehensive plan and the advisability of individual water resource policies, programs, and projects which the Commission may propose or consider.

The U.S. Commissioner continues to work very closely with the Army Corps of Engineers, the U.S. Geological Survey, the National Weather Service, the Environmental Protection Agency, and other agencies to manage the Basin's water resources in the following areas: flood control, flood warning, water supply, Chesapeake Bay, migratory fish restoration and other areas as appropriate.

An appropriation of $322,000 for FY 1997 is requested to finance salaries and expenses necessary to enable the U.S. Commissioner to carry out his responsibilities to protect the Federal Government's interests in the Susquehanna River Basin. The FY 1997 request for the salaries and expenses reflects the costs of a 2.4 percent pay increase in FY 1996.

SUSQUEHANNA RIVER BASIN COMMISSION
SALARIES AND EXPENSES

COMPARISON OF FUNDING

	Budget Authority		
	1995 Actual	1996 Estimate	1997 Estimate
Appropriation/Activity			
Salaries and Expenses....................	$317,000	$318,000	$322,000

SUMMARY OF INCREASES/DECREASES, 1997

	1996 Estimate	1997 Estimate	Increase (+) or Decrease (-)
Federal Representation........................	$318,000	$322,000	+$4,000

To provide for the salaries and expenses of the United States Commissioner.

JUSTIFICATION

Federal representation: Fiscal Year 1996, $318,000; Fiscal Year 1997, $322,000; increase $4,000. The increase consists of:

Increase (+) or Decrease (-):

Amount	Positions	Total Program	Total Positions	Explanation
+$4,000	--	$322,000	2	The increase reflects a reestimate of actual operations costs.

SUSQUEHANNA RIVER BASIN COMMISSION
SALARIES AND EXPENSES

For expenses necessary to carry out the functions of the United States member of the Susquehanna River Basin Commission, as authorized by law (84 Stat. 1541), $322,000.

Program and Financing (in thousands of dollars)

Identification code 46-0500-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
Obligations by program activity:				
10.00	Total obligations..................	283	318	322
Budgetary resources available for obligation:				
22.00	New budget authority (gross).........	317	318	322
22.30	Unobligated balance expiring.........	(34)	0	0
23.90	Total budgetary resources available	283	318	322
23.95	New obligations............................	-283	-318	-322
Change in unpaid obligations:				
72.40	Unpaid obligations, start of year:	11	21	32
73.10	New obligations............................	283	318	322
73.20	Total outlays (gross).......................	-281	-307	-322
73.40	Adjustments in expired accounts.....	8	0	0
74.40	Unpaid obligations, end of year......	21	32	32
Net budget authority and outlays:				
89.00	Budget authority............................	317	318	322
90.00	Outlays (net)...................................	281	307	322

SUSQUEHANNA RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Object Classification (in thousands of dollars)

Identification code 46-0500-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
	Personnel compensation:			
11.1	Full-time permanent	179	179	179
11.3	Other than full-time permanent	2	3	3
11.5	Other personnel compensation	0	0	0
11.9	Total personnel compensation.	181	182	182
11.2	Personnel benefits: Civilian	31	53	53
21.0	Travel and transportation of persons	9	10	10
23.1	Rental payments to GSA	26	28	29
23.3	Communications, utilities, and miscellaneous charges	1	5	5
24.0	Printing and reproduction	0	3	3
25.2	Other services	1	1	1
25.3	Purchases of goods and services from Government accounts	32	32	35
26.0	Supplies and materials	2	4	4
99.9	Total obligations	283	318	322

SUSQUEHANNA RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Personnel Summary

Identification code 46-0500-0-1-301	1995 Actual	1996 Estimate	1997 Estimate
Total number of full-time permanent positions................	2	2	2
Total compensable workyears:			
Full-time equivalent employment.....	2	2	2
Average ES Salary............................	$115,700	$115,700	$115,700
Average GS Grade............................	13.6	13.6	13.7
Average GS Salary...........................	$60,148	$61,679	$63,442

SUSQUEHANNA RIVER BASIN COMMISSION
SALARIES AND EXPENSES

Detail of Personnel Summary

Identification code 46-0500-0-1-301	1995 Actual	1996 Estimate	1997 Estimate
Special positions at rates equal to or in excess of $115,700:			
U.S. Commissioner	1	1	1
GS/GM-13	1	1	1
Total permanent positions	2	2	2
Unfilled positions, end of year	--	--	--
Total permanent employment, end of year	2	2	2

CONTRIBUTION TO SUSQUEHANNA RIVER BASIN COMMISSION
FY 1997 BUDGET

JUSTIFICATION OF PROGRAM AND PERFORMANCE

The Susquehanna River Basin Commission (SRBC) was created by Compact (Public Law 91-575) among the States of Maryland and New York, the Commonwealth of Pennsylvania, and the Federal Government. The purpose of the Compact is to enable the signatory parties to participate jointly in the conservation, utilization, development, and control of water and related resources in the region of the Susquehanna River Basin.

Under the terms of the Compact, the Commission is directed to develop and implement comprehensive plans, policies, and programs relating to the water resources of the Basin; to adopt and promote uniform and coordinated policies for water conservation, control, and development in the Basin; and to encourage the planning, development, and financing of water resources projects according to such plans and policies. The Commission also provides an administrative forum for the settlement of water-related disputes among its signatory states or water users. Such disputes would otherwise end up in the courts.

The principal members of the Commission are the governors of the signatory States, or their appointed designees, and a Federal Member appointed by the President. The Compact also provides for the appointment of an Alternate Member by each governor and the President with identical powers of the Member and power to vote in the absence of the Member.

The fiscal year 1997 budget requests $380,000 to cover the Federal Government's share of the $2,542,000 current expense budget of the Susquehanna River Basin Commission. Authority for the Federal Government's participation in the current expense budget of the Commission is provided for under Section 14.3 of the Susquehanna River Basin Compact approved December 24, 1970.

In fiscal year 1997, 24 positions will be funded and 11 positions will be unfunded.

Introduction

The Susquehanna River Basin Commission's fiscal year 1997 programs address current water resource issues of national and regional concern, including restoration and protection of the Chesapeake Bay, flood damage reduction, surface and ground-water management and protection, and nonpoint source pollution management.

The Susquehanna River Basin Commission's fiscal year 1997 Operating Budget of $2,542,000 will support the following programs:

Flood Plain Management and Protection

This program has received continuing attention by the Commission due to the high flood risk in the Basin and the extremely large number of basin communities located in high flood hazard areas. In the recent flooding of January 1996, there are estimates of as much as $1 billion in property losses and as many as 14 lives lost just in the Susquehanna Basin.

Flood Forecasting System Improvement Program

Efforts will continue to be directed toward completion and continued maintenance of the Flood Forecasting Improvements Program initiated by the Commission in cooperation with the National Weather Service (NWS) and the U.S. Geological Survey. This program provided additional rain and stream gages, new computer systems, new and enhanced radar systems and an upgraded communications network, all of which help to provide more timely and accurate forecasts for the entire Basin. The benefit to cost ratio of this non-structural program has been estimated at about 13 to 1 with an average annual reduction in flood damages of $17 million. Every dollar saved is one less dollar of federal disaster assistance that taxpayers have to pay out.

Thus far, the U.S. Congress has invested over $12 million for the program and the Commonwealth of Pennsylvania an additional $233,700. The Commission continues to coordinate the efforts of Federal, state, and local government agencies and businesses in flood prone areas to improve the effectiveness of this program and to advocate continued funding. Without continued maintenance, the effectiveness of the newly installed system will quickly deteriorate.

Water Supply Management

The Commission continued its management of storage in the Federally-owned Cowanesque Reservoir. This storage, which the Commission acquired under contract with the Corps of Engineers, is available for release during periods of low flow and results in an annual payment to the U.S. Treasury exceeding $3 million. This is not the repayment of a loan or the repayment for a benefit bestowed on the Commission by the government. It is the payment of a reallocated portion of the original construction cost of the project which the government would not be receiving but for the Commission's storage project. In this sense, it is a total windfall for the government.

The Commission is currently considering a similar project for water supply storage at Curwensville Lake in Clearfield County located in west central Pennsylvania. This project will return approximately $13,000,000 to the Federal treasury as reimbursement for a prorated share of the project's original cost.

Also, the Commission, in cooperation with the Pennsylvania Department of Environmental Protection, the Maryland Department of Natural Resources, the Pennsylvania Fish and Boat Commission, and the U.S. Army Corps of Engineers is completing an instream flow study. Very little is known in the eastern U.S. about the levels of streamflow required to support stream biota. The study will provide much needed insights into the instream flow requirements of typical river basin streams and thus help resource managers do a better job.

The Commission constantly monitors water use and availability in anticipation of emergency drought declarations or special protection designations under Article II of the Compact.

Chesapeake Bay Program

Water quality activities will continue at a high level of priority in fiscal year 1997, with continued emphasis on monitoring of nonpoint source contributions. Special effort will be directed to identifying and monitoring major nutrient loading sources throughout the Basin in cooperation with Maryland and Pennsylvania and the Environmental Protection Agency's Chesapeake Bay Program. While monitoring nutrients is important to determine their source, devising ways to deal with nutrients before they reach the river and the Chesapeake Bay is equally important. The Commission is working with leading edge technology that uses constructed wetlands as a natural and inexpensive method of removing excess nutrients from urban and agricultural runoff. The first SRBC constructed wetland on a farm in northern Dauphin County, Pennsylvania, which was designed to treat tile drain effluents, has been turned over to the sponsoring farmer for operation and maintenance. New wetlands are being constructed at a highway runoff site in Cumberland County, Pennsylvania and on a large farm in the Conestoga Creek Watershed, Lancaster County, Pennsylvania.

Another Commission activity funded through the Chesapeake Bay Program is intended to determine freshwater inflow needs of the Bay from the Susquehanna River. This unique mixing of fresh water and salt water has produced one of the most productive ecosystems in the world. The Susquehanna River provides over 50 percent of the freshwater flows to the Chesapeake Bay and more detailed studies are needed to assess the impacts of these flows into the Bay. SRBC will develop a strategy to address the relationship of freshwater inflows to the salinity distribution, water quality, available habitat and living resources of the Chesapeake Bay. Information learned from this study will facilitate the management of low freshwater flows to the Bay.

Another Bay initiative of the Commission concerns sediment loads from the Susquehanna River. Over the years, tens of millions of tons of nutrient-laden sediments have accumulated behind the hydroelectric dam sites on the lower Susquehanna River. If suddenly flushed into the Bay by a high water event on the Susquehanna, the consequences could be devastating to the Bay's delicate ecology.

The Commission, working through the Pennsylvania Department of Environmental Protection, initiated a study leading to the development of alternatives to deal with this large source of pollution to the Bay.

Finally, the Commission assisted the Commonwealth of Pennsylvania in the formulation of a nutrient reduction strategy to meet the state's pledge of a 40 percent reduction in nutrient loadings of Chesapeake Bay by the year 2000. All of these efforts are being undertaken to protect one of the Nation's great treasures--The Chesapeake Bay.

Recreation, Fish and Wildlife

The program objective is to preserve and/or enhance existing water-related outdoor recreation and, where possible, to expand these opportunities. A prime example is the Commission's effort to achieve restoration of diadromous fishes to the Susquehanna River, which has led to the installation of a fish passage facility at the Conowingo Hydroelectric Project in Maryland. Under an agreement signed on June 1, 1993, passage facilities will also be installed at the remaining three hydroelectric projects by the year 2000. Hydro licensees will work closely with the Commission and other resource agencies as installation proceeds.

Thus far, the restoration effort seems to be yielding encouraging results. Last spring, a record 60,000 shad were trapped at Conowingo Dam and transported upstream. Soon, fish passage facilities at all four lower Susquehanna River hydro dams will open most of the river and its major tributaries to migrating shad, which once traveled in huge numbers as far north as Binghamton, New York. The recreational and economic impacts of this restoration will be substantial.

Coordination

The Commission coordinates various Federal, state and local programs affecting water resources in the Basin. The SRBC Comprehensive Plan (Plan) serves as a basis for developing common approaches to resolution of problems and conflicts. The programs involved are flood control, water supply, water quality, recreation and fish and wildlife, and watershed management activities.

The Commission has organized a basinwide interagency water resources management committee to address water resource management concerns for ground-water supplies, instream flow needs, consumptive use makeup and drought emergency management. This is in keeping with the Commission's coordinative functions under the Susquehanna Compact.

Project Review

Under the Compact, the Commission is charged with the responsibility of conducting review of certain projects to assure they are compatible with the Plan and that they comply with all Commission regulations. These reviews in some cases require extensive technical and administrative analysis, as well as public hearings. Examples are relicensing of hydroelectric facilities, licensing of new electric generating and co-generating facilities, industrial and municipal withdrawals from surface and/or ground waters, significant discharges to waters of the Basin, and flood control projects. The Commission has implemented a project review application and monitoring fee schedule to help offset the increased cost of conducting project reviews and monitoring project compliance.

Also, a complete revision of the Commission's "Regulations and Procedures for Review of Projects" (18 CFR Part 803) was adopted on May 11, 1995. These changes, known as the "omnibus package of revisions," were published as final rules in June 1995.

Beginning on page SRBC-6 is the proposed work program for the Commission for FY 1997.

SUSQUEHANNA RIVER BASIN COMMISSION
FY 1997 OPERATING BUDGET

	FY 1995 Budget	FY 1996 Budget	FY 1997 Budget
Revenues:			
Signatory Parties:			
Maryland	$340,000	$360,000	$380,000
New York	$340,000	$360,000	$380,000
Pennsylvania	$340,000	$360,000	$380,000
Federal Government	$288,000	$250,000 *	$380,000
Other Revenues:			
Grant, EPA-Water Quality (106)	$80,000	$80,000	$80,000
Sale of Publications & Misc. Inc	$42,000	$52,000	$52,000
Permit & Monitoring Fees	$65,000	$150,000	$90,000
Building Rental Income	$41,000	$41,000	$41,000
Fiscal Stabilizaton Fund & Grants	$502,000	$727,000	$759,000
TOTAL ALL SOURCES	$2,038,000	$2,380,000	$2,542,000
Expenditure:			
Personnel Services	$1,214,000	$1,409,000	$1,411,000
Fringe Benefits	$411,000	$463,000	$488,000
Special & Contractual Services	$85,000	$194,000	$200,000
Travel & Subsistence, Meetings	$24,000	$29,000	$30,000
Communications, Postage	$22,000	$34,000	$48,000
Rent-Machinery & Equipment	$5,000	$5,000	$5,000
Printing, Reproduction, Legal Ads	$27,000	$38,000	$45,000
Repairs & Maint.-Bldg. & Equipment	$39,000	$41,000	$41,000
Other Contractual Services	$23,000	$25,000	$25,000
Utilities, Janitorial Serv	$62,000	$65,000	$65,000
Mortgage Payments	$25,000	$25,000	$25,000
Supplies & Materials	$38,000	$39,000	$43,000
Miscellaneous Expenses	$18,000	$24,000	$26,000
Automobile & Office Equipment	$45,000	$99,000	$90,000
TOTAL EXPENDITURES	$2,038,000	$2,490,000	$2,542,000

*The total amount for revenues and expenditures are not the same because the Commission formally adopted a budget previous to enactment of the FY 1996 Energy and Water Development Appropriation Act.

SUSQUEHANNA RIVER BASIN COMMISSION
CONTRIBUTION TO SUSQUEHANNA RIVER BASIN COMMISSION

COMPARISON OF FUNDING

	Budget Authority		
Appropriation/Activity	1995 Actual	1996 Estimate	1997 Estimate
Contribution to Susquehanna River Basin Commission.....................	$288,000	$250,000	$380,000

SUMMARY OF INCREASES/DECREASES, 1997

	1996 Estimate	1997 Estimate	Increase (+) or Decrease (-)
Contribution to the Commission.................	$250,000	$380,000	+$130,000

To provide for the 1997 Federal share of the annual expenses of the Susquehanna River Basin Commission.

JUSTIFICATION

Contribution to the Commission: Fiscal Year 1996, $250,000; Fiscal Year 1997 $380,000; increase $130,000. The increase consists of:

Increase (+) or Decrease (-):

Amount	Positions	Total Program	Total Positions	Explanation
+$130,000	--	$380,000	--	Federal contribution to 1997 current expense budget of the Susquehanna River Basin Commission.

SUSQUEHANNA RIVER BASIN COMMISSION
CONTRIBUTION TO SUSQUEHANNA RIVER BASIN COMMISSION

For payment of the United States share of the current expenses of the Susquehanna River Basin Commission, as authorized by law (84 Stat. 1530, 1531), $380,000.

Program and Financing (in thousands of dollars)

Identification code 46-0501-0-1-301		1995 Actual	1996 Estimate	1997 Estimate
Obligations by program activity:				
10.00	Contribution to the Commission (object class 41.0)........................	288	250	380
Budgetary resources available for obligation:				
22.00	New budget authority (gross).........	288	250	380
23.95	New obligations.............................	-288	-250	-380
Change in unpaid obligations:				
73.10	New obligations.............................	288	250	380
73.20	Total outlays (gross)......................	-288	-250	-380
Net budget authority and outlays:				
89.00	Budget authority..............................	288	250	380
90.00	Outlays (net)...................................	288	250	380

SUSQUEHANNA RIVER BASIN COMMISSION FY-97 WORK PROGRAM OUTLINE

I: COORDINATION

Coordination

Objective:

To bring about coordinated planning and management of the water resources of the basin; to evaluate projects and proposals for the development, use and management of the water resources of the basin; and to educate the public about the water resources of the basin.

Description:

Coordination is an essential and mandated responsibility of the Commission. The program purpose is to minimize duplication of efforts, maximize limited resources and reduce conflicts among federal, state and local governments sharing responsibility for management of the basin's water resources.

Activities and Output:	**Completion Date:**
1. Work closely with existing advisory committees and consider forming others as necessary.	Continuous through entire FY-97.

2. Continue to coordinate with state agencies and federal agencies such as the Army Corps of Engineers, EPA, USGS, and the NWS on functions involving interagency cooperation. SRBC will continue to further strengthen the coordinated regional approach to protecting and improving water quality.	Continuous through entire FY-97.
3. Assist local government officials and private interests, if staff resources allow, in resolving water resources and related concerns and answer questions about applicable Commission regulations and programs.	Continuous through entire FY-97.
4. Seek funding for a Susquehanna River Water Forum II, Susquehanna Neighbors II or other such conference or meeting to coordinate water resource management efforts of signatory agencies, political subdivisions and private parties.	Continuous through entire FY-97.

5. Continue efforts to promote interstate comity through amicable settlement of regulatory issues relating to withdrawals from Susquehanna River by the City of Baltimore (see also p. 21).	Continuous through entire FY-97.

Resource Requirements:

Work years: **.28**

Budget:

Salaries, Fringe & Overhead	**$40,000**

Revision and Maintenance of Comprehensive Plan/Strategic Plan/Water Resources Plan

Objective:

To update and maintain the three basic plans for Commission programs: the Comprehensive Plan, a Strategic Plan and a Water Resources Plan.

Description:

Commission maintains and, as necessary, updates both a Comprehensive Plan for management of the basin's resources and a Strategic Plan for the guidance of SRBC work programs and the establishment of program priorities. Plan revisions will involve extensive staff consultations with the Commission, signatory agencies and the public through hearings. meetings and informal discussions. The early action portion of the Comprehensive Plan will be the foundation for the Commission's Annual Water Resources Plan.

Activities and Output:	**Completion Date:**
1. Continue oversight on the administration of the Commission's Strategic Plan. Begin development of early action program of Comprehensive Plan.	Continuous through entire FY-97.

Resource Requirements:

Work years: .21

Budget:

Salaries, Fringe & Overhead	$30,000

Public Information and Education

Objective:

To provide information and education about the water resources of the basin.

Description:

Goal number six of the SRBC mission statement is "to provide public information and education about the water resources of the basin." In recent years, SRBC has initiated several new public information/education programs such as the *Guardian* newsletter and the Susquehanna River Education Project. Staff has also continued established public information activities and efforts such as periodic news releases and the annual report.

Activities and Output:	**Completion Date:**
1. Publish an Annual Report for Calendar 1996.	March 31, 1997.
2. Publish four issues of the *Guardian* newsletter.	Issue at the end of each calendar quarter.
3. Integrate many of the public information activities in key Commission functions such as flood forecast and warning, agricultural water use registration and consumptive use management activities.	Continuous through entire FY-97.

4. Speak at conferences, meetings and other private and public gatherings to inform citizens, business, industry and agriculture about the Commission's programs.	Continuous through entire FY-97.
5. Issue regular and special news releases informing the media, and ultimately the public, of Commission actions and functions.	Continuous through entire FY-97.
6. Produce special publications such as brochures and fact sheets dealing with special subjects or geographic areas.	Continuous through entire FY-97.
7. Provide prompt service in response to phone inquiries from the media and interested citizens.	Continuous through entire FY-97.
8. Formulate public information strategies to inform citizens, signatory officials, business, industry and agriculture on the work and purposes of the Commission.	Continuous through entire FY-97.
9. Begin activities related to the formation of an advocacy group for the Susquehanna River watershed.	Continuous through entire FY-97.

Resource Requirements:

Work years: .59

Budget:

Salaries, Fringe & Overhead	$85,000

Computer System Management

Objective:

To maintain and improve the Commission's existing computer system to ensure that staff is able to use the system efficiently.

Description:

The program includes routine maintenance of the system and training staff in the use of the system. A major upgrade of the in-house computer system was begun in FY-93 and there is a continuous need to upgrade and expand hardware and software to maintain and enhance system performance and avoid obsolescence.

Activities and Output:	**Completion Date:**
1. Continue development and utilization of the in-house data management system, supplemented by direct access to appropriate signatory agency data processing systems.	Continuous through entire FY-97.
2. Continue to explore and develop new areas of data processing applications, especially in the areas of data management and GIS applications.	Continuous through entire FY-97.

Resource Requirements:

Work years: .10

Budget:

Salaries. Fringe & Overhead	$15,000
Equipment	$15,000
	$30,000

II. FLOOD PLAIN MANAGEMENT AND PROTECTION PROGRAM

Flood Forecast and Warning and Data Repository

Objectives:

To prevent loss of life and significantly reduce future damages from floods within the basin in cooperation with local, state and federal interests.

Description:

The Commission has coordinated an inter-agency effort providing for improvements to the basinwide flood forecast and warning system for ten years. The Commission will continue to coordinate this function with the involved state and federal agencies, local interests and Congress and will continue to support efforts to improve the timeliness and accuracy of forecasts. including implementation of new technology for forecast preparation, forecast dissemination and disaster response.

If funds are available, the Commission will assist with the development of local flood forecast and warning systems in cooperation with local state and federal interests.

Water Management personnel will continue to work with local citizens, business interests and government officials to interpret flood insurance data and other flood plain management data. Stream flows, snowpack, soil moisture and climatological conditions will be monitored to determine the potential of developing flood flows.

Activities and Output:	**Completion Date:**
1. Continue basinwide flood forecast and warning system coordination activities.	Continuous through entire FY-97.
2. Assist with development of local flood forecast and warning systems, if funds are available.	Continuous through entire FY-97.
3. Enhance public outreach efforts to inform citizens, business interests and local government officials about flooding and how to prepare for and respond to flood events.	Continuous through entire FY-97.
4. Share information with local interests on successful flood-related programs existing at the state and federal levels.	Continuous through entire FY-97.
5. Explore role for SRBC to act as a clearinghouse for flood related information during flood events.	Continuous through entire FY-97.

Resource Requirements:

Work years: 1.38

Budget:

Salaries, Fringe and Overhead	$200,000	(NWS grant $40,000)

III. WATER MANAGEMENT PROGRAM

Consumptive Water Use

Objective:

To plan for future water resource needs of the basin and develop and implement a basinwide consumptive water use management plan.

Description:

The Commission will continue to work with state, local, and federal agencies to plan projects and solve existing or potential water problems. A draft Consumptive Water Use Management Plan will be developed to determine where water storage is available and how it can be released to replace consumptively used water, while minimizing the effects on recreation and the environment at the reservoirs. The Commission also will participate in feasibility studies and design of reservoir projects needed for the plan. Other continuing activities include the management of the direct releases of water stored at Cowanesque Reservoir and other consumptive water use compliance actions for facilities regulated by the Commission.

Activities and Output:	**Completion Date:**
1. Develop a consumptive water use management plan and hold public information meetings to explain it and solicit public input.	Continuous through entire FY-97.
2. Complete the annual review of the Cowanesque Reservoir Project with the Corps of Engineers.	November 1996.

3. Develop a financial plan to implement the modification of the Curwensville Reservoir Project.	Continuous through entire FY-97.
4. Initiate reservoir feasibility study of COE reservoir(s) for the Agricultural Water Use Plan.	Continuous through entire FY-97.
5. Initiate Drought Management Plan for the basin.	Continuous through entire FY-97.
6. Effect consumptive water use operations and compliance monitoring during low flow events. Notify consumptive water users and the Corps of Engineers when consumptive use compliance actions are required and direct releases of water from the Cowanesque Reservoir Project.	Continuous through entire FY-97.
7. Review annual consumptive water use data as it is provided by regulated users.	Continuous through entire FY-97.
8. Monitor water use on the Avoca, N.Y. project.	Continuous through entire FY-97.
9. Negotiate a technical solution for the operation of the Baltimore diversions which complies with SRBC's Comprehensive Plan (see also p. 13).	Continuous through entire FY-97.

Resource Requirements:

Work years:	1.79
Budget:	
Salaries, Fringe & Overhead	$260,000

Water Resource Monitoring and Water Withdrawal Registration

Objective:

To register all surface and ground-water withdrawals in the basin exceeding 10.000 gpd, and monitor current water resources data to identify potential flood or developing drought conditions.

Description:

Commission personnel will continue to gather water withdrawal information within the basin and maintain the information for planning and project review decisions.

Staff will continue to monitor stream flows, ground-water levels, precipitation, soil moisture, reservoir levels and other hydrologic factors throughout the basin. The public will be notified of any developing problems such as the potential for floods or droughts.

Activities and Output:	**Completion Date:**
1. Monitor hydrologic conditions and prepare hydrologic reports.	Continuous through entire FY-97.
2. Continue ongoing registration of agricultural water use, started in FY-96.	Begin March 31, 1997.
3. Coordinate registration of nonagricultural water use with Pa. and Md. and begin registration of N.Y. water use, if authorized.	November, 1996.

Resource Requirements:

Work years:	1.05
Budget:	
Salaries, Fringe & Overhead	$150,000

Project Review

Objective:

To continue to regulate projects affecting the development, use, and management of the water resources of the Susquehanna River Basin.

Description:

The Commission is required to review and approve certain types of water resources projects as prescribed in Article 3, Section 3.10 of the Susquehanna River Basin Compact, Public Law 91-575. The procedures for Commission review and approval are outlined in the Commission's Regulations and Procedures for Review of Projects, which are found in the Title 18, Chapter 8, Part 803 of the Code of Federal Regulations. Most applications will be for projects involving surface-water and ground-water withdrawals in excess of 100,000 gallons per day and consumptive water uses exceeding 20,000 gpd as per the Commission's revised project review regulations.

After projects are approved by the Commission, staff monitors the project's activities for compliance with approvals. To date, about 175 projects are being monitored. The number of projects being approved annually is increasing due to better coordination with applicants and the states, and this should increase further after the water registration is completed.

Activities and Output:	**Completion Date:**
1. Review and process dockets.	Continuous through entire FY-97.
2. Continue monitoring efforts to ensure compliance with docket approvals.	Continuous through entire FY-97.

3. Continue efforts to identify projects subject to the Commission's regulatory authority.	Continuous through entire FY-97.
4. Evaluate how efficiencies can be realized in the administration of project review activities.	Continuous through entire FY-97.

Resource Requirements:

Work years: 2.24

Budget:

Salaries, Fringe & Overhead	$325,000

Ground-Water Management

Objective:

To provide a general summary of the ground-water resources of the basin and identify and describe areas where existing uses of the ground-water resource have created, or are threatening to create, conflicts or shortages.

Program Description:

The Commission's Comprehensive Plan and project review regulations provide the framework for most of the ground-water management activities of the SRBC. These activities include reviewing and acting on projects having large ground-water withdrawals, performing both local and regional resource appraisals, and preparing water resource plans.

Activities and Output:	**Completion Date:**
1. Complete the hydrologic resource appraisal of Spring Creek Basin, Centre Co., Pa.	June 1997.
2. Conduct other hydrogeologic studies.	Continuous through entire FY-97.

Resource Requirements:

Work years: .28

Budget:

Salaries, Fringe & Overhead	$40,000	(EPA 106 grant $20,000)

IV. WATER QUALITY PROGRAM

Chesapeake Bay Program Monitoring

Objectives:

1. To collect monthly baseflow samples and daily or more frequent samples during selected storms from six sites in the Susquehanna River Basin as part of a program to establish a long-term data base.

2. To collect nutrient and suspended sediment concentration data and water discharge data from the Susquehanna River and selected tributaries as part of a program to establish a long-term data base to compute nutrient and suspended sediment loads and trends.

Description:

This program was initiated in January 1990. Monthly baseflow samples and daily or more frequent samples during a minimum of five storms will be collected from the Susquehanna River at Towanda, Danville, and Marietta, the West Branch Susquehanna River at Conestoga. The data will be used to compute annual nutrient and suspended sediment loads and yields for comparison among the selected subbasins. Additionally, the data will be used to analyze trends for the 1997 re-evaluation analysis project and the integrated assessment of water quality and biological conditions in the Susquehanna River Basin (see also p. 30-33). The suspended sediment data will be used in the initial phase of the study for management of suspended sediments in the Susquehanna River Basin. The data collected under this project will also be useful in evaluating the cost effectiveness of nutrient reduction strategies.

Activities and Output:	**Completion Date:**
1. Synthesize and enter data into electronic data files.	Continuous through entire FY-97.
2. Place collected data in the water resource data report published annually by the USGS.	Continuous through entire FY-97.
3. Submit quarterly reports to Pa. DEP for submission to U.S. EPA.	Continuous through entire FY-97.
4. Analyze data to prepare for nutrient loading report.	June 30, 1997.

Resource Requirements:

Work years: 1.39

Budget:

Salaries, Fringe & Overhead	$199,000	
Contractual Fees	$12,000	
Total	$211,000	(DEP grant $120,000)

Integrated Assessment of Water Quality and Biologic Conditions in the Susquehanna River Basin

Objective:

To consolidate water quality and biological data for integrated analysis and comparison and to summarize, by Chesapeake Bay Program model segments, information on the current ecological condition of major watersheds.

Description:

Many water and land resource investigations have yielded vast amounts of environmental data in the Susquehanna River Basin. Environmental data exist in many disseminated reports among state agencies and in separate data base products as the result of past Chesapeake Bay Program supported projects. Some of these data bases and information include:

1. Water Quality and Biological Surveys (SRBC, USGS (NAQWA), Pa. Fish Commission).
2. Point Source flows and loads in the Susquehanna River Basin (CBP, Point Source database) and from major dischargers in Pa. (Pa. DER, 1992).
3. Rotating Intensive Basin Studies (NY DEC).
4. Water quality data base prepared for Nutrient Subcommittee (NSC) by the USGS.

This project would implement the recommendation of the Chesapeake Bay Monitoring Program refinement to expand tributary water quality and living resources monitoring programs to meet management information needs. This information would support decision makers in the 1997 reevaluation of the 40% reduction goal in the Susquehanna River Basin.

Activities and Output:	**Completion Date:**
1. Submit quarterly progress reports to the Monitoring Subcommittee. Submit the final report (after second year) including a biological database.	Continuous through entire FY-97.

Resource Requirements:

Work years: .28

1997 Budget:

Salaries, Fringe & Overhead	$40,000	(DEP-CBP grant $30,000)

Chesapeake Bay Program 1997 Reevaluation Analysis

Objective:

To evaluate the response of the Susquehanna River non-tidal tributary system to the implementation of Pennsylvania's strategy in terms of water quality and to provide a "bottom line" measure of the strategy's success or the need for redirection.

Description:

The project will update the non-tidal water quality data base prepared for the Nutrient Subcommittee. The data base currently contains data for 1972-1992. The update will be for 1993-1995. Tasks will include:

1. Identifying sites to estimate trends in concentrations of TN, NO23, TP, PO4, and suspended solids where data are available to meet seasonal kendall trend test requirements.

2. Running the seasonal kendall trend test to identify significance and direction of trend in concentration at all sites identified in Task 1.

3. Running the Cohn (MVUE) and flow correction model to identify significance, direction, and percent change in concentration at watershed model calibration sites in the Susquehanna and other model segment sites where sufficient data exist.

4. Running the Cohn (MVUE) and flow correction model to identify direction and percent change in load at watershed model calibration sites and other model segment sites where sufficient data exist.

5. Comparing trends identified in river loadings to watershed model predicted load reductions as related to Task 4, if current watershed model run is available.

Activities and Output:	**Completion Date:**
1. Prepare a technical report covering the elements of this project in a coordinated manner through the guidance of the Monitoring Subcommittee's Data Analysis Workgroup. The results will be available in July 1997 for synthesis with other components of the Reevaluation (being coordinated by other subcommittees).	Continuous through entire FY-97.

Resource Requirements:

Work years: .24

Budget:

Salaries, Fringe & Overhead	$35,000	(DEP-CBP grant $45,000)
Contractual	$25,000	
Total	$60,000	

Non-Tidal Tributary Data Inventory

Objective:

To develop an inventory of non-tidal water quality data sets for the Chesapeake watershed.

Program Description:

The intent of this project is to develop an inventory of data sets produced by monitoring programs. It will include current as well as historical data sets. The inventory will describe the coverage of each data set with respect to period of record, parameters, and stations, plus a description of how the data are stored and how they may be obtained. This inventory will be a resource from which Bay Program investigators can determine the data sets that are useful, and how to acquire them, for evaluating the progress of the Bay cleanup and its impact on the non-tidal tributaries. The Susquehanna and Potomac river basin commissions expect to use this inventory in the future to develop data repositories that will provide convenient public access to the important data sets for their watersheds. The basin commissions also will use this inventory to acquire data sets for their basinwide assessments of water quality. The EPA can use this inventory to update descriptions of non-tidal monitoring programs in volume 1 of the *Atlas*.

Activities and Output:	**Completion Date:**
1. Survey federal, state and local government agencies plus academic and volunteer organizations to obtain information about current and historical monitoring data sets. The survey will ask what data sets the agency has, what form it is in, and whether the agency is willing to provide access to the data. (Access to data sets could be either directly from the agency, or indirectly through the river basin commissions.)	Continuous through entire FY-97.
2. Compile survey results into a data base whose elements will include: brief description of purpose of monitoring program; period of record; number of stations and station locations; parameter list; brief methods description to extent information is available; sampling frequency; name, address, and phone number for contact person; and media on which data can be obtained (paper, floppy diskette, mag. tape, CDROM, INTERNET. For digital media, what the available formats are).	Continuous through entire FY-97.

The resulting inventory will be different from the 1989 *Atlas* in that it will focus on data sets rather than on program, and it will contain historical data sets and more data sources. This inventory will be provided to the Bay Program as a final report and will be made available on world wide web sites such as the Bay Program home page and Chesapeake Bay Information Online Service.

Resource Requirements:

SRBC will assemble data for the Susquehanna watershed, and the Interstate Commission on the Potomac River Basin (ICPRB) will assemble data for the Potomac watershed and other parts of the Maryland and Virginia Chesapeake Bay watershed. SRBC and ICPRB jointly will develop the database structure, the final report, and the database to be placed on the world wide web.

Work years:	.21	
Budget:		
Salaries, Fringe & Overhead	$30,000	(DEP-CBP grant $15,000)

Biomonitoring Protocol for Assessing the Effects of Best Management Practices Implementation on Riparian/Stream Ecosystem Integrity

Objective:

To identify the relationships that exist between the terrestrial and aquatic components of agricultural ecosystems under a variety of geomorphological settings in the Susquehanna River Basin.

Description:

The purpose of this two-year biomonitoring effort is to assess the effects of best management practices (BMP) implementation on a variety of physical, chemical and biological characteristics that impact aquatic organisms and greatly influence stream ecosystem integrity. From this monitoring effort, data will be provided to target suitable locations for the implementation of specific BMPs and most likely aid in the development of new BMP technologies.

Activities and Output:	**Completion Date:**
1. Develop stream biological data.	October 31, 1996.
2. Analyze data.	January 31, 1997.
3. Prepare data report.	May 30, 1997.

Resource Requirements:

Work years:	.28		
Budget:			
Salaries. Fringe & Overhead		$40,000	(DEP-CBP grant $25,000)

Nutrient Reduction Cost-Effectiveness Analyses, 1996 Update

Objective:

To conduct a cost-effectiveness analysis for determining the least costly means for achieving a 40 percent reduction in the controllable load of nutrients reaching the Bay from the Susquehanna River.

Description:

The means for achieving the goal are, among others, the application of nonpoint BMPs and point source retrofits, each with a known cost and nutrient reduction capability. Obtaining a cost-effective solution without imposing any constraints on the strategy is termed the absolute minimum cost (AMC) solution. The AMC strategy will be viewed as representing the baseline strategy.

The Commission will interact with DEP decision-makers to identify additional constraints on the strategy that reflect equity, programmatic, budgetary and other limitations, and institutional consideration. We also will compute the costs of new scenarios that incorporate the additional constraints identified above. Comparison with the AMC strategy will provide an estimate of the costs of the additional constraints. The data sources will include various scenarios from the Phase III watershed model and point source data collected by Pa. DEP in 1993. All strategies will be produced using projected-year 2000 land use.

The proposed project will benefit the Pa. DEP by providing an enhanced update of strategies proposed or in use to meet the Chesapeake Bay Program year 2000 nutrient reduction goal. The project will also provide procedures for the use of available software in conducting strategy analyses. The cost-effectiveness approach is useful in identifying tradeoffs that exist between program cost and program thrusts.

Activities and Output:	**Completion Date:**
1. Prepare a brief report listing the Susquehanna River tributary strategy examined. The report will contain an evaluation of the effectiveness of the strategy, and the impact of differing assumptions and the methodologies on the cost. Data will be provided to Pa. DEP on IBM compatible 3 1/2 inch diskettes.	March 31, 1997.

Resource Requirements:

Work years: .48

Budget:

Salaries, Fringe & Overhead $70,000 (DEP-CBP grant $50,000)

Interstate Monitoring

Objective:

To conduct interstate water quality monitoring activities that assess the effectiveness of pollution abatement measures being implemented under state and federal programs.

Description:

Monitoring activities conducted by New York, Pennsylvania, and Maryland do not cover all of the interstate streams; nor do they produce comparable data. Thus, SRBC established a monitoring program to collect data needed to assess potential impacts on the water quality of interstate streams. A report of findings is published annually and submitted to the U.S. EPA Region III. This ongoing monitoring function is half funded through a grant from the U.S. Environmental Protection Agency.

Water samples will be collected from 15 stations on interstate streams on an annual basis. The data collected will be used to: (1) assess compliance with water quality standards; (2) assess impacts on water quality; (3) characterize ambient and seasonal stream quality; and (4) assess future trends.

Activities and Output:	**Completion Date:**
1. Annually sample and assess interstate streams.	July 1997.
2. Compile information and data collected and analyze for presentation in a report.	October 1997.

Resource Requirements:

Work years:	.21	
Budget:		
Salaries, Fringe & Overhead	$30,000	(EPA 106 grant $15,000)

Subbasin Water Quality Surveys

Objective:

To assess the chemical, biological and physical condition of the Susquehanna River Basin surface waters and evaluate any trends since the previous survey. SRBC also makes reports available to consultants and other interested parties.

Description:

The subbasin surveys determine water quality from a single grab sample and biological data from benthic macroinvertebrate sampling by revisiting sites previously sampled. Subbasin surveys are conducted on a 10-year cycle. Sampling sites on the Susquehanna River bracket major tributaries and significant point sources. On tributary streams, sampling sites are located near the mouth and a point midway in the watershed.

Reports for the Juniata River Subbasin will be completed and sampling of the lower Susquehanna River subbasin will be initiated.

Activities and Output:	**Completion Date:**
1. Develop reports assessing the water quality of the subbasins.	Continuous through entire FY-97.
2. Complete and issue the West Branch Susquehanna River Subbasin report.	June 30, 1997.
3. Initiate sampling for lower Susquehanna River subbasin survey.	July 1, 1997.

Resource Requirements:

Work years:	.77	
Budget:		
Salaries, Fringe & Overhead	$110,000	(DEP grant $86,000)

Geographic Information Systems

Objective:

To continue to develop staff technical skills in the area of Geographic Information Systems (GIS). Commission staff will form and participate in interagency associations designed to share data, technology, and perhaps hardware necessary for the development of a GIS system. The Commission needs to acquire and update hardware, software, and data bases necessary to use GIS in both basinwide and subbasin applications in the Susquehanna River Basin.

Description:

Commission staff is trying to develop a basic understanding of GIS systems. and is actively trying to establish a GIS program for the Commission. Under prior year programs, the Commission has acquired hardware and software for GIS applications, and staff has participated in a limited amount of training. The intent of this budget item is to continue the Commission's commitment to GIS through staff training, participation in user groups, and limited application of GIS to projects.

Activities and Output:	**Completion Date:**
1. Continue to cooperate with the Natural Resources Conservation Service in the sharing of GIS resources.	Continuous through entire FY-97.
2. Actively participate in GIS user groups, as appropriate.	Continuous through entire FY-97.
3. Investigate and, when possible, take advantage of opportunities for both formal and informal training in GIS.	Continuous through entire FY-97.

4. Acquire a modem for the Data General Computer to import data for use in GIS software programs.	Continuous through entire FY-97.

Resource Requirements:

Work years:	.17	
Budget:		
Salaries, Fringe & Overhead	$25,000	(EPA 196 grant $12,500)

Incorporation of Stream Reach Geomorphology/Benthic Macroinvertebrate Relationships Into the Special Protection Waters Program

Objective:

To identify the geomorphological features of streams and their watersheds that are primarily associated with determining macroinvertebrate community structure and to evaluate the effectiveness of the Rosgen Morphological Stream Classification System as a tool for determining habitat comparability between candidate and reference streams.

Program Description:

A combination of multivariate statistical procedures, including classification (cluster analysis) and ordination techniques, will be used in an analysis of benthic macroinvertebrate and stream reach geomorphological data from 36 stream reaches designated as High Quality-Cold Water Fisheries. This analysis will involve classifying stream reaches into discrete groups based on the structure of their macroinvertebrate communities and identifying the relationships that exist between stream geomorphological features and macroinvertebrate community classes.

Activities and Output:	**Completion Date:**
1. Obtain stream reach geomorphology data from USGS 7.5 minute topographic maps and by revisiting study reaches. Macroinvertebrate, habitat, and water quality data were collected during July and August of 1993, 1994, and 1995, as part of the SRBC's Subbasin Water Quality and Biological Monitoring Program.	Continuous through entire FY-97.

2. Analyze data relying on a combination of multivariate statistical procedures, including classification (cluster) analysis to identify groups of stream reaches with similar faunal characteristics based on Rapid Bioassessment Protocol (RBP III) macroinvertebrate community data and ordination techniques to access the discreteness of those groups based on the suite of habitat quality score, stream order, and stream reach geomorphology (Rosgen classification) data.	Continuous through entire FY-97.
3. Summarize the results of the project for a final report.	Continuous through entire FY-97.

Resource Requirements:

Work years: .24

Budget:

Salaries, Fringe & Overhead $35,000 (DEP grant $25,000)

V. WATERSHED PROTECTION PROGRAM

Use of a Field Drain and an Artificial Wetland to Minimize Ground-Water Contamination From an Agricultural Site in the Conestoga River Watershed

Objective:

To test the concept of using a field drain to collect shallow ground water and provide treatment with a small, artificial wetland in the Conestoga River watershed.

Description:

This is the final year of a two-year effort to develop a monitoring system to test the ability of wetlands to aid in the reduction of nitrogen from agricultural runoff in ground water. A numerical cross-sectional model will be developed to evaluate the effectiveness of the tile field drains in capturing shallow ground water by providing estimates of the depth of the boundary between flow that is captured by the drain and flow that bypasses the drain.

Activities and Output:	**Completion Date:**
1. Prepare data report on field drain and artificial wetlands.	September 30, 1996.

Resource Requirements:

Work years: .10

Budget:

Salaries, Fringe & Overhead $15,000 DEP grant $10,000)

Use of Constructed Wetlands in the Mitigation of Highway Runoff on the Ground-Water Quality in Carbonate Areas

Objective:

To evaluate the feasibility for mitigating any adverse effects on water quality from highway runoff using constructed wetlands and develop criteria for the design and installation of wetland treatment systems for runoff from highways crossing carbonate areas.

Description:

This is the second year of a four-year study to determine if pollutants in stormwater can be removed by wetlands through a combination of physical and chemical mechanisms. The use of wetlands is receiving increasing attention as a viable method to remove pollutants from stormwater runoff. The Commission completed the reconnaissance of carbonate areas in Pennsylvania for proposed sites to monitor highway runoff and selected the site at a rest stop on Interstate 81 in Cumberland Valley 30 miles west of Harrisburg. A wetland will be constructed and water quality will be monitored with a sampling program to analyze the results through laboratory tests.

Activities and Output:	**Completion Date:**
1. Completion of constructed wetland.	October 31, 1996.
2. Monitor water quality and record data.	Continuous through entire FY-97.

Resource Requirements:

Work years: .2

Budget:

Salaries, Fringe & Overhead	$28,000	(PennDOT ISTEA grant $28,000)

Managing Sediment in the Susquehanna River Basin

Objective:

To conduct a reconnaissance level study to assess sediment transport in the Susquehanna River Basin and evaluate alternative remediation measures. The ultimate goal is to reduce sediment loads to the Chesapeake Bay.

Description:

The Commission began working with the U.S. Army Corps of Engineers in FY-96 on a comprehensive reconnaissance study of the Susquehanna River Basin. A portion of that study is devoted to determining which reservoirs and downstream resources are being affected by sediments in the Susquehanna River and ultimately the Chesapeake Bay. To do this, SRBC will review existing reports and data to determine which subbasins and watersheds are major sources of sediment in the Susquehanna River Basin. SRBC will conduct activities including: (1) coordinating, collecting, and summarizing all the available data concerning sediment effects to downstream resources within the Susquehanna River Basin; (2) analyzing data. identifying sediment-related impacts; (3) prioritizing subbasins for additional investigation and selecting two watersheds which have significant sediment problems for further evaluation; and (4) evaluating appropriate remedial measures for problems identified and preparing recommendations regarding feasibility of a plan that would identify possible methods and actions to address the sediment-related issues for the two selected subbasins.

Activities and Output:	**Completion Date:**
1. Prepare section for sediment appendix and sections for main report.	August 1996.

Resource Requirements:

Work years: .50

Budget:

Salaries, Fringe & Overhead	$75,000	COE grant $75,000)

Note: Budget estimate based on the percent of tasks remaining from FY-96.

Wiconisco Creek Project

Objective:

To develop a comprehensive watershed implementation plan for managing nonpoint source pollution in order to restore and protect the water quality and ecological integrity of the Wiconisco Creek watershed.

Description:

Citizens and various organizations, businesses, municipalities, and government agencies in the Wiconisco Creek watershed have demonstrated that there is local interest in the ecological integrity of the watershed. This interest greatly increases the probability that the communities within the watershed would support an implementation plan designed to restore and protect the water quality and ecological integrity of Wiconisco Creek and its tributaries.

The implementation plan will be developed using geographic information systems to integrate landscape features (e.g., land use, geology, soils, etc.) with field and laboratory data pertaining to water quality, instream and riparian habitat, and stream biological conditions throughout the watershed. The plan will be developed using an interdisciplinary approach which will rely heavily on interacting with a number of government agencies, private organizations, and the local citizenry.

In addition to assessing the water quality, habitat, and biological conditions of the watershed, the implementation plan will make recommendations on how to restore and/or protect the water quality and ecological integrity of the Wiconisco Creek watershed. The plan also will discuss the expected environmental results (in terms of miles of stream restored, pounds of pollutants removed, etc.) associated with the implementation of the recommended remediation/restoration activities.

Activities and Output:	**Completion Date:**
1. Collect water quality, habitat, and biological field data.	Summer 1996.
2. Review monitoring and land use/land cover data and information obtained from government agencies and the private sector and compile data.	December 1996.
3. Conduct field trips, classroom lectures, meetings with teachers, elected officials, etc. as opportunity occurs throughout the study period.	Continuous through entire FY-97.
4. Collect nutrient/sediment load data.	May 1997.
5. Prepare a comprehensive watershed management plan. Submit articles for the EPA's NPS News Notes and the SRBC's Guardian Newsletter.	June 1997.

Resource Requirements:

Work years: .48

Budget:

Salaries, Fringe & Overhead $70,000 (EPA 106 grant $32,500)

VI. RECREATION, FISH & WILDLIFE PROGRAM

Fish Restoration

Objective:

To preserve and/or enhance existing outdoor recreation and fish and wildlife potentials.

Description:

Commission participation in the ongoing migratory fish restoration program as undertaken in cooperation with hydropower licensees and other government agencies will continue. These activities are all part of our ultimate goal of restoring American shad and diadromous fishes to the Susquehanna River.

Activities and Output:	**Completion Date:**
1. Participate on fisheries committees addressing the anadromous fish restoration program.	Continuous through entire FY-97.
2. Provide follow-up and continuing review of: Conowingo fish lift operations; upstream utilities' fish facility design; overall shad restoration program, including spawning success of fertile shad stocked above Safe Harbor Dam and downstream migration program.	Continuous through entire FY-97.
3. Provide quarters and certain services for the Anadromous Fish Restoration Coordinator.	Continuous through entire FY-97.

Resource Requirements:

Work years: .06

Budget:

Salaries, Fringe & Overhead	$8,000

Instream Flow Studies

Objective:

To develop a generalized regional methodology and associated application criteria for determining the quantities of stream flow needed during the year to support cold water aquatic biota habitat.

Description:

This is a multi-year effort, ongoing since FY-94, which will use actual instream flow assessment studies of selected streams throughout the Susquehanna basin and adjacent watersheds in Pennsylvania and Maryland to gather the data necessary to develop empirical regional estimates of instream flow needs. The selected field sites are all naturally reproducing native trout streams grouped according to the geologic characteristics of the individual watersheds.

In FY-97, the work efforts will focus on finalizing preference criteria, completing all of the habitat modeling of the individual stream sites, compiling the individual results into a usable regional methodology, and preparing reports on the total study effort. All of this will be coordinated with the Instream Flow Subcommittee of the Commission's Water Resources Management Advisory Committee.

Activities and Output:	**Expected Completion Date:**
1. Finalize computer modeling.	April 1996.
2. Develop instream flow criteria.	October 1996.
3. Report preparation.	December 1996.

Resource Requirements:

Work years: .82

Budget:

Salaries, Fringe & Overhead	$120,000	(DEP grant $60,000)

Note: Budget estimate based on the percent of tasks remaining from FY-96.

VII. GENERAL ADMINISTRATIVE PROGRAM

Objective:

To account for staff time expended in developing programs, budgets and periodic program report summaries.

Description:

Internal and external meetings occur that do not relate directly to specific Commission programs. In addition, time is expended in program development and budgeting as well as in the production of periodic program summaries and internal reports such as inputs for the annual report and responses to the signatories.

Resource Requirements:

Work years: .48

Budget:

Flood Plain Management	$15,000
Water Supply	$28,000
Water Quality	$25,000
Watershed Protection	$5,000
Total	$73,000

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

ATTACHMENTS TO APPROPRIATION REQUEST STATEMENT

FISCAL YEAR 1997

ATTACHMENT I

BUDGET JUSTIFICATION MATERIAL

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

Proposed Expenditures for Fiscal Years 1996 & 1997
($000)

Expenditure Categories	FY 1996	Estimated FY 1997
Personnel Salaries & Benefits	$ 1,042	$ 1,105
Rent, Office Expense, Travel, Publications, etc.	390	385
Consultants & Contracts	624	610
TOTAL Expenditures	$ 2,056	$ 2,100
TOTAL Staff	18	18

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Proposed Contributions & other Projected Income for FY 1996 & 1997
($000)

Income Source		
Signatory States		
District of Columbia	$ 50	$ 52
Maryland	112	115
Pennsylvania	34	35
Virginia	108	111
West Virginia	39	40
Subtotal, States	343	353
Direct U.S. Appropriation	511	508
USEPA Annual Program Grant, Sec. 106 Fed. Clean Water Act	160	160
CO-OP Contribution from Water Util.[1]	208	209
Other Sources (Spec. Proj's, Int., etc.)	882	870
TOTAL Income	2,104	2,100

(1) Washington Suburban Sanitary Commission (MD), Fairfax County Water Authority (VA), and the District of Columbia thru the Washington Aqueduct Division, COE.

ATTACHMENT II

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN

FISCAL YEARS 1996 - 1997 PROJECTS

WATER QUALITY

Chesapeake Bay Program - .201 - This project encompasses our contributions to the Chesapeake Bay Program that are not covered by project specific grants. These contributions generally occur through ICPRB staff participation in Bay Program committees and is in support of the states' efforts to reduce pollution and improve water quality conditions necessary to support living resources in the Bay and its tributary watershed, including the Potomac. In previous years this project number referred to our Potomac Nutrient Reduction Strategy project, while non project specific contributions to the Chesapeake Bay Program are described under projects 205 and 717.

State Water Quality Assistance - .205 - Each year, ICPRB allocates a portion of its budget to providing assistance to the states on an 'as requested' basis and to support various state initiatives concerning water quality. Issues vary from year to year, typically including requests for information and water quality data, reviews of technical work or proposals, and analyses of specific technical issues. Beginning with this year, participation in Chesapeake Bay Program committees is allocated to project 201. Time also is allocated to respond to requests from the public for technical information about water quality.

Pennsylvania Water Quality Monitoring - .207 - This project is for the operation of a nutrient and sediment monitoring station on Conococheague Creek. The station is specifically set up to collect samples during high storm flows, during which most of the annual load of nutrients and sediments is transported. The objective is to collect data for the Pennsylvania Department of Environmental Protection from which estimates of annual loads of nutrients and sediments can be made. This information will provide a baseline which the PA DEP can use to assess progress in reducing nutrient loads from the Pennsylvania portion of the Conococheague watershed. Operation of the monitoring station, and laboratory analyses, are subcontracted to the USGS.

Toxics and Sediment Chemistry Studies - .209 - This project category covers several activities concerned with assessing the level of pollution by chemical substances in the basin. One objective may be to develop workplans to describe options on dealing with areas of elevated levels of contaminants and biological impact. Additional objectives are to publish the information obtained from various studies within the Potomac Basin and to help augment other projects within the Commission.

Kenilworth Marsh Nutrient Study - .213 - The objectives of this study are to determine if the newly created Kenilworth Marsh is a net source or sink of nitrogen and phosphorus to the Anacostia River, and what are the seasonal transformations of the different nitrogen and phosphorus species as they are cycled within the restored wetland. Conclusions from the study will help assess the role of restored wetlands in controlling nutrients to the Bay. Over the course of 20 tidal cycles, from April 1995 to March 1996, samples will be collected to determine the amount of water entering and leaving the marsh along with the concentration of the different N and P species. These data will be used to calculate if the marsh is retaining or releasing nutrients to the Anacostia River. Participation from members of the District's Environmental Regulation Administration, National Biological Survey (CUE), and the National Park Service is part of this study.

Potomac Watershed Studies - .215 - ICPRB staff proposed, at the June, 1994, business meeting, to begin a series of related studies of water quality, living resources, and water resources in the Potomac watershed. A preliminary report was produced in FY95 that consists of a characterization, and regional assessments, of physical and chemical quality. The report was based largely on existing documents available from the states and federal agencies. A revision to that report, to incorporate more water quality data and a finer stream resolution is planned for FY96. In FY'97, staff will begin analyzing data in conjunction with living resource data being compiled under Project #711.

Anacostia Toxics Action Plan. - **.223** - The Bay Program has declared three areas of the Chesapeake Bay as "Regions of Concern" for high toxic contamination: Anacostia River, Elizabeth River, and Baltimore Harbor. At the 1993 Executive Council meeting, each jurisdiction was directed to develop an action plan to address the problems related to toxics. These plans originally were to be completed before the October 1994 Executive Council meeting. The DC DCRA asked ICPRB to write the action plan for the Anacostia. After beginning the development of the toxic action plans, all of the jurisdictions (the District of Columbia, Maryland, Virginia, and the EPA) agreed that more time was needed to complete the plans. Consequently, it was agreed to present progress reports of the plan for each Region of Concern at the Fall 1995 Executive Council meeting, and to submit final reports by June of 1996. This project will be completed by the end of FY'96.

Anacostia Sediment Volume - .227 - This project will determine the volume and mass of contaminated sediments in the tidal Anacostia River within the District of Columbia. Specific objectives of this project are: 1) to determine the volume of recently-deposited sediments in the lower Anacostia River, 2) to determine the concentration and volume of sediments with elevated levels of metal and organic contaminants, and 3) to estimate the burial rate of these contaminants. These results will be used to determine sound management options for reducing or controlling impacts from contaminated sediments. This project supports the goals of the District of Columbia's toxics management plan for the Anacostia (see #.221 and #.223).

Anacostia Water Quality Monitoring - .229 - This project will estimate the transport of specific organic contaminants to the tidal Anacostia River. Specific objectives include: 1) over a one year period, collect six base flow water samples at the streamflow gages on the NE and NW branches of the Anacostia River; 2) collect samples from three storms at the same gages; 3) analyze samples for dissolved and particulate hydrocarbons (PAHs), total PCBs, total chlordane, and total DDTs; and 4) determine the load of organic contaminants to the tidal river. This project supports the goals of the District of Columbia's toxics management plan for the Anacostia (see #.221 and #.223) by providing information about upstream loads .

Urban BMP Efficiency - .231 - The use of urban stormwater management facilities to control non-point pollution is a component of the Chesapeake Bay cleanup, and of particular interest in the urban and suburban watersheds within the basin. The long-term performance of urban best management practices (BMPs), though crucial to controlling urban non-point pollution, is poorly understood. This project draws upon the current engineering literature along with a variety of analytical and field techniques to better quantify the efficiency and variation in the performance of urban stormwater BMPs. Rather than supporting lengthy and expensive monitoring of BMPs, the Commission proposes to calculate the long-term removal efficiencies of practices such as stormwater management ponds and sand filters through the analysis of the contaminant concentrations in sediments within BMPs.

W.V. Water Quality Data Report - .232 - Part A. The Commission is working cooperatively with the Potomac Highlands Water Quality Office in Moorefield to asses potential water quality impacts from alternative uses of poultry manure in agriculture. Part B. Commission staff will prepare a brief analysis of available water quality data from the South Branch Potomac River basin.

Refinement of Urban Load Estimation - .233 - Urban non-point pollution has been identified as a significant source of both nutrients as well as hydrocarbons and heavy metals. While many planning level techniques are available to estimate urban non-point pollutant loads, these techniques provide highly variable estimates. This project compares different planning level methods for estimating annual average urban non-point loads, quantifying both the expected annual load as well as the uncertainty in the estimate.

Nutrient Management - .235 - The USEPA is encouraging large hog and dairy operations to adopt methane recovery systems as part of their animal waste management systems. The breakdown of animal wastes releases methane, which is suspected of contributing to global warming and the "greenhouse effect." Methane recovery systems capture the released methane and use it to generate electricity or to power farm operations. The effluent from ordinary animal waste treatment system is normally applied to crops as fertilizer. The impact of using effluent from methane recovery systems on crops and water quality is unknown. ICPRB will study how the use of methane recovery systems will alter cropping systems and nutrient management plans of hog and dairy operations in the Chesapeake Bay Basin. Field-scale simulation, using EPIC (Erosion/Productivity Impact Calculator) will be used to explore and quantify the financial and water quality impacts of adopting a methane recovery system. The analysis will be supported by a review of relevant literature, documenting current nutrient management and animal waste management in the basin, as well as the current work on agronomic and environmental issues associated with animal waste management.

Virginia Turf Grass - .236 - A significant portion of the nitrogen applied as fertilizer to lawns in Northern Virginia may be lost in percolation and runoff. This nitrogen may then be transported to surface water, contributing to the eutrophication of local rivers, streams, and reservoirs, as well as the Potomac River and Chesapeake Bay. ICPRB will attempt to quantify the nitrogen losses from lawns using computer simulation. The field-scale model, EPIC (Erosion/Productivity Impact Calculator), will be used to represent lawn care management practices typical of homeowners and the lawn-care industry. The lawn care practices recommended as "environmentally sound" will also be modeled. Warm-season and cool-season grasses will simulated on three different soil types. The computer simulations will provide estimates of the nitrogen lost per acre per year for each scenario.

EPIC Nutrient Loads Modelling - .238 - Earlier ICPRB reports and studies found that the effectiveness of agricultural best management practices (BMPs), measured as the percent reduction in nutrient load caused by the installation or implementation of a BMP, varies with soil, weather, and topology. This project will build on these earlier efforts. The computer model, EPIC (Erosion/Productivity Impact Calculator), will be used to simulate edge-of-field nitrogen and phosphorus losses from representative crop scenarios in the Chesapeake Bay Basin. The effects of meteorology , soils, crop rotations, and nutrient management plans will be examined. The locations, soils, crop rotations, and nutrient management plans to be evaluated will be chosen in conjunction with the Nutrient Subcommittee of the Chesapeake Bay Program. The long-term effectiveness of nutrient management plans and other nonstructural BMPs and the variability of their effectiveness with soils and meteorology will be evaluated.

Refinement of Urban Load Estimation II - .242 - This project is a continuation of project # 319. The methodology developed in the earlier project to estimate nonpoint contaminant loads from urban watersheds will be applied to urban watersheds within the Chesapeake Bay Basin. Estimates of the average annual loads from each model segment in the Chesapeake Bay Watershed Model will be calculated. The reliability of the estimates will also be determined by calculating confidence limits for the estimated loads, in accordance with the methodology developed in the earlier project.

WATER RESOURCES

Climate Change Study - .312 - Working closely with the Institute for Water Resources of the Corps of Engineers, ICPRB is developing the water resources response and water management operating model for a study of the effects of climate uncertainty in the Potomac River basin. This is a continuation of a multi-year study to investigate the potential long term climate change effects on Potomac River basin hydrology and water demands. Co-participants at the Johns Hopkins University are under contract to prepare the meteorological input data and water demand forecasts for the project. In addition, staff will be working with others in the field at the University of Washington and at Harvard University on similar projects at other locations around the country and of potential relevance to the Potomac River basin.

Jennings Randolph Lake Reallocation Study - .315 - The need to find additional water supply storage for several potential water users pursuant to the Maryland Consumptive Water Use Regulation motivated MD DNR to ask the Baltimore District of the U.S. Army Corps of Engineers (ACE) to undertake a Reallocation Study of existing storage in Jennings Randolph Lake. ICPRB is under agreement to MD DNR to perform hydrologic and demographic analyses associated with the potential reallocation of storage in the existing lake. The management and funding of the reallocation study on behalf of the CO-OP water supply utilities is reported under PP&B project 500 (CO-OP). ICPRB, with its institutional expertise concerning water resources systems operations in the Potomac Basin, will continue in FY'97 to provide needed technical and administrative support to the Reallocation Study.

NPS Greenbelt Park - .317 - ICPRB is coordinating an interagency effort to design and implement stream restoration measures and water quality improvement practices in the National Park Service's Greenbelt Park. The park is in an otherwise urbanized area of Prince George's County, Maryland, and is heavily impacted by urban storm water entering the park and by erosion and sediment mobilization on land within the park. ICPRB will continue, in FY'97, to provide coordination and oversight to the design and construction of this project to stabilize and reduce erosion from this nonpoint source of sedimentation.

Evitt's Creek Watershed - .322 - After participation in activities and meetings of the Evitt's Creek Steering Committee in FY '93, the potential for ICPRB's contribution was recognized. The Commission is participating in the development of a watershed management plan to reduce pollutants reaching the reservoirs (located in Bedford County, PA) of the Cumberland, MD water supply system. Attention is also being given to improving water quality downstream of the dams and in the downstream portion of Evitt's Creek watershed in Maryland. Staff are assisting other agencies in applying for, cost shared funding of pollution reduction measures through agencies of the two states and the Chesapeake Bay Program. In FY'97, ICPRB will assist the Evitt's Creek Steering Committee in finding additional funding partners, and in the implementation of nonpoint source pollution remediation projects.

North Branch Wetland Development - .327 - ICPRB is working with the U.S. Bureau of Mines (BOM), the MD Bureau of Mines, Garrett County, and the Maryland Department of the Environment to develop and construct innovative anoxic drain-wetland treatment systems to mitigate the effects of acid mine drainage in the North Branch, Potomac River. These systems are considered passive systems because they entail little or no maintenance.

Elklick Run #2 (SAPS) - .328 - ICPRB is working with the U.S. Bureau of Mines (BOM), the MD Bureau of Mines, Garrett County (MD) Sanitary Commission, and the Maryland Department of the Environment to develop and construct an innovative Successive Alkalinity Producing System (SAPS) to mitigate the effects of acid mine drainage in the Elklick Run tributary to the North Branch Potomac River. These systems are considered passive systems because they entail little or no maintenance. This is the second acid mine drainage mitigation project in the Elklick Run watershed in which ICPRB is participating. In FY'97, ICPRB will be responsible for final design and construction of this project.

Occoquan Water Treatment Rehabilitation - .333 - The work performed in this project will provide the Fairfax County Water Authority with technical support as they develop alternate capacities and operating policies in designing the rehabilitation of the Occoquan water treatment facilities.

Flood Control (Project under design) - The January flooding caused problems in the upper part of the watershed and all along the C&O Canal which parallels the river for 185 miles. Several communities have asked for ICPRB assistance in coordinating Federal, state and local agencies in addressing their problems. In addition, the C&O Canal Park (an agency of the National Park Service) is requesting ICPRB assistance in developing a flood reduction/mitigation plan for the Park. The facility has suffered severe damage in the several large storms in the past 10 years.

INTERSTATE COMMISSION ON THE POTOMAC RIVER BASIN
Section for Co-operative Water Supply Operations on the Potomac

CO-OP - .500 - This task includes staff time to prepare, direct and report on the CO-OP program; preparation for and participation in CO-OP and CO-OP related meetings. Activities in the areas of water supply operations include the collection and analysis of water use and resource data, conducting hydrologic and water use studies, maintaining and improving the computer models developed to perform CO-OP functions, preparing Water Supply Outlooks, and conducting Drought Exercises. CO-OP activities representing the water supply utilities in the Jennings Randolph Reservoir reallocation study are also reported under this PP&B item. Staff plans for and responds to incidents which might affect water quality, and to information and requests on behalf of the CO-OP utilities. The ICPRB/CO-OP toxic spill model is maintained and operated for the utilities.

ICPRB, in FY'97, will provide all necessary water resource system allocation services for the Washington Metropolitan Area. In addition, the Commission as a participant in the regional water emergency response plan, will provide emergency notification and follow-up information on pollution of the Potomac River which may affect the water intakes of the metropolitan area water suppliers.

PUBLIC EDUCATION AND AFFAIRS

Public Education and Technology Transfer-.601 - Publication of six issues of the *Potomac Basin Reporter* during the fiscal year. This section also may include other public education efforts.

Basin Public Information - .603 - A range of public education/technology transfer activities other than the Reporter includes: answering queries from the public, media, and government agencies; press releases; library maintenance; preparation of other educational materials; and the Potomac River Watch radio public service announcements during the summer.

Anacostia Restoration-.607 - The Anacostia Public Education and Participation Program has these thrusts:

*Support and enhance the efforts of the Chesapeake Bay Program, and local and state watershed improvement efforts, and to provide additional support of mutually beneficial program linkages.
*Educate the public about the Anacostia watershed and its sub-basins, and the link between the Anacostia, Potomac, and the Chesapeake Bay.

*Aggressively encourage the participation of the public in watershed cleanup efforts using various methods.

The program uses part-time coordinators for sub-basins who promote citizen stewardship through meetings and presentations. They also are recognized as information resources by area decision-makers and natural resource agencies working in the watershed. Plans call for two quarterly Anacostia newsletters to keep watershed residents informed.

Potomac Visions Outreach - .611 - The project uses the earlier Potomac Visions work as a template to provide tools to Potomac basin residents in creating a vision for their local watershed and in taking steps to realize that vision. Efforts will center on several watersheds each year in which project staff will make contacts with local decision-makers, schools, private groups, and citizens. Work within the watershed will culminate in a tour of the local stream, a "town meeting" to discuss problems and present the vision process, and talks in one or more local schools. Other agencies performing public outreach in the watershed will be contacted to efficiently coordinate efforts.

Arakawa-Potomac Sister River Agreement Project-.613 - The project began when the Commission was approached by a Japanese delegation interested in cultural exchange on a watershed basis. The project will involve ICPRB with the states on another level, drawing all entities closer and improving our working relationships. New connections with various Potomac educational, recreational, scientific, and cultural groups will be attempted.

LIVING RESOURCES

North Branch Recreational Fishing Industry / Anacostia Stream Restoration - 701 - Continued assistance and coordination for resource planning and development of the recreational fishery on the North Branch, Potomac River in cooperation with an interstate task force and Corps of Engineers feasibility study. Technical assistance with aquatic resource restoration and stream habitat improvements in the Anacostia River.

Anacostia Fish Passage Monitoring - 703 - The Anacostia River, which drains Prince Georges and Montgomery Counties in Maryland and much of the District of Columbia, contains many blockages to fish migration in the form of capped pipeline crossings, stream water velocity dissipators and old concrete weirs. The U.S. Army Corps of Engineers (USACE) has begun Anacostia Project modifications for the improvement of the environment under Section 1135 of the Water Resource Act of 1986. An important component of this work is the removal of many of these fish blockages and during 1995 the USACE modified three structures to permit passage. ICPRB will conduct biological monitoring of migratory fishes at key tributaries and blockages in order to assess progress and set priorities for removal or modification of additional structures. Fish migrations will be surveyed by electrofishing twice weekly from the last week in March until the end of the migratory runs, in late May.

District of Columbia Fish Tissue Contamination Study, Phase II - 706 - Analysis and evaluations of concentrations of heavy metals, pesticides and other organic contaminants in game fish collected in the District of Columbia during 1993 & 1994. This study will augment and continue previous contaminant analysis work. It will be used to help update the District's wildfish consumption advisory and will complement similar analysis related to the Kenilworth Marsh restoration on the Anacostia River.

Sligo Creek Biomonitoring - 708 - This biomonitoring program helps assess the effects of restoration projects in Sligo Creek, Anacostia River. This is a cooperative effort between the Washington Area Council of Governments, the Maryland Department of the Environment, and the Montgomery County Parks Department.

Surveys of fishes and benthic macroinvertebrates have been conducted at eight stations in Sligo Creek and one in a tributary to Rock Creek since the Fall of 1990 and will continue through 1997. Tetra Tech, as a subcontractor on the project, has conducted stormwater management pond sediment contaminant analysis and invertebrate identifications and evaluations.

Integrative Analysis of Tidal Potomac River Habitat Quality & Biological Communities - 710- This project brings together experts from Maryland, Virginia, the District of Columbia and federal monitoring programs to jointly analyze different kinds of monitoring data collected from the Potomac, i.e. chemical, physical and biological. The project will examine how nutrient loading changes since the 1960's have changed key biological communities (e.g. benthos, phytoplankton, zooplankton, fish, submerged aquatic vegetation, etc.) and how the estuary may respond to specific management actions. The project will assess the "health" of the tidal Potomac and the ecological consequences of diverse management policies. Results of the project will be the basis for one of the two reports described in the Project 711 summary. Funding and/or matches are provided by the Chesapeake Bay Program (CBP), ICPRB, George Mason University, US Geological Survey and the Maryland Departments of Natural Resources (MDDNR) and Environment (MDE). The funding vehicle for CBP project funds was initially MDE and is now MDDNR (Tidewater Ecosystem Assessment Division).

The Commission solicited input from the other project participants and synthesized a detailed scope of work for the project shortly after the initial, 14 March 1995 meeting. This scope of work is still being reviewed by the MDDNR project participants. The Commission used project funds to identify available water quality data sets (STORET search) and obtain and reformat specific biological and weather data sets. Funds were allocated in August 1995 to George Mason University to provide 1 year of support for a graduate student to assemble, analyze, and interpret water quality, phytoplankton and zooplankton data from the District of Columbia monitoring programs, the Gunston Cove Ecosystem Project, and the state of Virginia's monitoring program for its embayments. No other project assignments have been made and only 24% of the project funds have been dispersed/ allocated by MD DNR. The project is expected to be completed in June 1977.

Potomac River Living Resources Monitoring Project (PRLRMP) - 711 - This long-term project provides the conceptual framework for advancing one of the Commission's strategic goals: basin-wide evaluation of Potomac waters. The project focuses on aquatic living resources, from algae to vertebrates. All other projects currently lead by Dr. Claire Buchanan (710, 715, 721, 727), as well as her involvement in the Chesapeake Bay Program Living Resources Subcommittee (201), contribute to the PRLRMP effort in some way. The project is now concentrated on assembling and analyzing monitoring data from the tidal Potomac River (Potomac estuary) and the riverine or free-flowing Potomac mainstem above the fall-line. The need for endeavors such as this to integrate, maintain and analyze data sets is becoming generally recognized on regional and national levels.

This effort was initially guided by the tidal Potomac River Living Resources Monitoring Plan (ICPRB 1989). Drafted in 1989 by ICPRB and a task group of scientists and resource managers working on the Potomac estuary, the plan coordinates the ongoing living resources monitoring programs of various federal, state and local agencies and provides a framework for an integrated monitoring program in the Potomac estuary. The plan's goals are 1) to encourage high quality biological monitoring programs in the Potomac and 2) to foster the exploration of large-scale and long-term trends in the Potomac River's biota, and relationships between living resources, habitat, and water quality. ICPRB has taken the lead in implementing the PRLRMP plan since 1989.

ICPRB has actively encouraged coordination of biological monitoring programs in the tidal Potomac, tracked progress towards implementation of the various PRLRMP recommendations in semi-annual reports, located and obtained biological data for the Potomac estuary and non-tidal waters, assembled integrated databases with comparable data sets, and participated in Chesapeake Bay Program efforts to develop analytical tools (indicators) with which to interpret and communicate monitoring data from the Potomac estuary as well as the Chesapeake Bay.

Commission staff, in conjunction with federal, state and local monitoring program representatives, are beginning to use the integrated databases to assess the biological integrity of the Potomac estuary and free-flowing waters, and in particular the structure and functioning of the river's diverse ecosystems and how they are impacted by man's present uses of water and aquatic living resources (e.g. ICPRB project #710). Staff will then compare these biological assessments with the water quality/quantity assessments produced by another ICPRB effort lead by Carlton Haywood. Two reports will be produced which are specifically designed to aid living resources managers and scientists in evaluating the "health" of the Potomac River biological communities and the consequences of diverse management policies. A 4 year scope of work was developed, with Report I (estuary) now scheduled for September 1997 and Report II (rivers and streams) scheduled for December 1998.

Exotic Species in the Potomac River Watershed - 713 - The Living Resources Section began this project to track monitoring of exotic species such as Zebra Mussels, Grass Carp, and Hydrilla by Potomac River basin agencies and to inform the public about methods of transport, potential impacts, and current developments. ICPRB continues to follow basin monitoring results and keep up-to-date on zebra mussel biology, detection (monitoring), and control methods. We accomplish this through close contact with state and federal monitoring programs and newsletters. ICPRB continues to provide information on the basin-wide status of exotic species through the *Reporter* and provide input to agencies that are taking an active role in the management of exotic species.

Development of Zooplankton Bioindicators for Chesapeake Bay - 715 - This Chesapeake Bay Program funded project is a direct result of ICPRB's involvement in the 1991 workshop on zooplankton monitoring in the Chesapeake Bay. It furthers the objectives of ICPRB's Potomac River Living Resources Monitoring Program (ICPRB project #711) by developing improved analytical methods for biological databases. Claire Buchanan chairs the project's team of Bay researchers and managers which will select definitive zooplankton indicators of the environmental health of Chesapeake Bay.

Our goals for the fourth and final year of the project (June 1995 - September 1996) are to assess status and trends in the Chesapeake Bay mainstem and tidal tributaries using the newly developed indicators, communicate the project's results with the Ecosystem Modeling project sponsored by the CBP Living Resources Subcommittee, and shepherd the indicators into the official ranks of Chesapeake Bay Biological Indicators. While this phase of the project will end in 1996, Chesapeake Bay work groups are recommending this work be continued.

Development of Phytoplankton Environmental Indicators for Chesapeake Bay - 721 - This multi-year project is modeled after the zooplankton bioindicator project (Project 715) and officially began with a February, 1994 meeting in Norfolk. A group of scientists and managers led by Dr. Ray Alden of Old Dominion University (ODU) will attempt to identify phytoplankton indicators of the environmental "health" of Chesapeake Bay. Dr. Buchanan of ICPRB is a principal investigator in the project. The project will continue through FY'97.

Little Falls Fish Passage - 726 - The project is part of a multi-agency effort to provide fish passage at the Brookmont Dam at Little Falls, Potomac River. Fishes of concern include the American shad, hickory shad, alewife, blueback herring, striped bass and white perch. In addition, resident fishes such as walleye and smallmouth bass should also benefit from unrestricted access to the 10 miles of river up to Great Falls.

A major component of the project is an American shad stocking program which is being done to imprint shad to the historic spawning and nursery waters and to help rebuild Potomac River shad stocks. It is expected to continue for five years. Each spring, the ICPRB and the USFWS's Harrison Lake National Fish Hatchery cooperate in the collection of adult American shad and the subsequent stocking of a target 1 million shad fry/year at Mather Gorge. The adult shad are captured with the assistance of a Virginia waterman, Marvin Lewis Harley. This coming Spring ICPRB will assist the Chesapeake Bay Foundation in a new initiative to involve schools in the shad stocking program. As currently conceived, selected schools from Maryland and the District of Columbia will receive several thousand shad fry to raise in the classroom for later release at Mather Gorge.

ICPRB also monitors ichthyoplankton and the presence of young of the year migratory fishes above the dam during the spring and summer. Steven Leathery, a graduate student from George Mason University, is using this project as the basis of his masters thesis and he is extremely helpful with the research as well as the stocking program. The District of Columbia's Fisheries Program also provides assistance with staff and equipment support.

If all goes well, the target date for the construction of the fishway is the fall of 1997.

Chesapeake Bay Living Res. Monitoring Plan: Data Management and Reporting - 727 - This multi-year project is 95% funded by the EPA Chesapeake Bay Program (CBP). The Commission is leading an effort to rigorously review and update CBP data management and reporting of living resources monitoring data, and to hire and train an individual to oversee the biological monitoring databases at the CBP Office. The goal of the project is to make biological data more accessible to managers, modelers and researchers, and to encourage their use through better reporting.

An update of the *Chesapeake Bay Basin Monitoring Program Atlas, Vol. II Biological and Living Resources Monitoring Programs* was done by ICPRB staff in FY95 and will aid the Data Manager and others in locating and obtaining Chesapeake Bay data. This is a major work effort and represents a significant ICPRB contribution to the Chesapeake Bay Data Center. The project will continue through 1997.

Rock Creek Fish Passage - 728 - This project involves the removal of two blockages to fish migration in Rock Creek, Rock Creek National Park, Washington, D.C. Target fishes include: alewife, blueback herring, and yellow perch. In addition, resident fishes such as smallmouth bass should also benefit from unrestricted access to these resources.

The work continues the process of removing all impediments to migratory fish passage in the Rock Creek stream basin. As signatories to the 1987 Chesapeake Bay Agreement, the District of Columbia, the State of Maryland and the National Park Service are trying to open all the anadromous fish spawning habitat that is located within their borders. To this end, these agencies, with the assistance of the Chesapeake Bay Program and the Interstate Commission on the Potomac River Basin, are in the process of removing the barriers which limit migration of the anadromous and other migratory fish within Rock Creek, a tributary of the Potomac River. The Rock Creek basin contains many miles of anadromous fish spawning habitat which has been lost over the years because of the erection of several instream structures that limit or block fish passage. These structures include U.S. Geological Service Gauging Stations and weirs, roadway stream fords, concrete caps to sewer lines, and a low head dam (Pierce Mill). While this particular project will be completed in 1996, the ICPRB anticipates additional projects for removing fish blockages.

Development of Fish Environmental Indicators for Chesapeake Bay - 730 - This one year project will produce composite indices of larval fish habitats derived from estuarine monitoring data. The five major factors that determine habitat quality for larval stages of key fish species, and ultimately impact larval survivability, will be assessed and then composited into a single index for three key species: striped bass, white perch, and bay anchovy. The five factors are zooplankton productivity, temperature, water flow, toxic pollutants, and predation. This project 95% funded by the Chesapeake Bay Program Living Resources Subcommittee. Most of the funds will be passed through ICPRB to Coastal Environmental Services which has the technical expertise needed. The project will begin in June 1996 and continue through June 1996.

THURSDAY, MARCH 28, 1996.

APPALACHIAN REGIONAL COMMISSION

WITNESSES

GASTON CAPERTON, GOVERNOR OF WEST VIRGINIA, STATES' CO-CHAIRMAN

JESSE L. WHITE, JR., FEDERAL CO-CHAIRMAN

TOM HUNTER, EXECUTIVE DIRECTOR

MR. MYERS' OPENING REMARKS

Mr. MYERS. The committee will come to order.

We are pleased today to have the Appalachian Regional Commission. We are pleased to have you gentlemen. And Jesse, I understand you are not feeling on top of the world today.

Mr. WHITE. Fighting the flu, Mr. Chairman.

Mr. MYERS. Don't spread it around. Don't be a distributor today.

Governor, we are pleased to have you today. Your prepared statements will be placed in the record.

MR. WHITE'S OPENING STATEMENT

Mr. WHITE. Thank you very much, Mr. Chairman and members of the committee.

I am pleased, as always, to come before you to present President Clinton's 1997 budget for the Appalachian Regional Commission. I am particularly pleased to be joined by our state cochairman, my long-time friend, Governor Caperton of West Virginia. Also joining us at the table is Tom Hunter, who is the executive director.

ARC ORGANIZATION

As most of you know, even though we are 60 people under one roof, we are three offices: The State office, which is headed by Mike Winger, who is also here; the Federal office, which is only 11 of us; and then the Commission office, which is about 50 staff members paid for half with Federal funds and half with State funds. So Tom heads up that staff. I am pleased to be joined by my two partners here this morning.

I would like to begin by thanking the committee for its leadership on our behalf last year in putting together that incredible vote on the Floor of the House—319 to 108. I know much of that leadership came from this committee, and, once again, we want to express our appreciation to you for that.

It is sort of a bittersweet hearing for many of us because it is the last time that we will have the chance to present our budget to you, Mr. Chairman, and to our long-time chairman and good friend, Mr. Bevill, and we want to thank you both for your courtesies and your fair hearing of the ARC through the years, and we wish you well in your new endeavors.

1997 BUDGET REQUEST

There are two themes of this budget submission. I would characterize it by saying, first of all, it is sort of steady as she goes. It requests level funding with the appropriated amount last year of $170 million. I am pleased that in this time of budget austerity President Clinton has stuck with us in his budget, and, as I mentioned a moment ago, we were extremely pleased by the bipartisan vote in both the Senate and the House last year for the Commission.

I think it reminds us that the work of economic development need not be a partisan matter, and in fact we have always enjoyed bipartisan support. In fact, eight of our governors are now Republicans for the first time in the history of the Commission, and they all, of course, strongly support us.

STRATEGIC PLAN

The second theme is that this is the first budget submission that is being keyed to our strategic plan, called Setting A Regional Agenda. We brought enough copies for members of the committee to have, in case you don't already have one. I want to talk a little bit, if I may, Mr. Chairman about this strategic plan, because we do hope that it will drive our budget submissions for the next few years to come.

When I took office about 2 years ago and realized that the ARC was going to be celebrating its 30th anniversary, we decided that the best way to do that was to undertake a strategic planning process. The region and the world had changed a lot in the last 30 years, and we thought it was time to take a look at the ARC and at the Appalachian region and try to retool ourselves. Rather than hiring a consulting firm, we did it ourselves. It almost killed the staff, I think, but it took 18 months.

We heard from some 2,000 Appalachians out in the field. We had four town meetings, one in Ohio, one in West Virginia, one in New York, one in Mississippi. They were all interstate town meetings. We had some 13 focus groups, 9 consultations, a satellite teleconference, and two retreats between the States and myself to hammer out this final document. In the February quorum meeting of the governors, the governors and I unanimously adopted this strategic plan called Setting A Regional Agenda.

I think the strategic plan does two things. It charts a new course of self-sufficiency for the region and tries to adopt a path toward creating more entrepreneurial communities in Appalachia. Secondly, it strikes a balance between the historical State flexibility that we have had at the Commission, which gives the governors wide latitude in how they invest our funds, but it also provides some structure for those investments so that they add up to something on a regional basis.

The mission statement that we adopted, I think, really says it all, and I would like to read that to the committee. It says: "ARC's mission is to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and an improved quality of life."

I think the mission statement speaks to the fact that the solutions to Appalachia don't lie in Washington or in the State capitals; they lie with the people themselves. But they need partners and advocates and people like us to provide them with the resources to get the job done; and, secondly, as I mentioned before, the goal is to move our communities toward great self-sufficiency.

So we asked ourselves, what are the building blocks for self-sufficiency in economic development? What does it take for communities to be self-sufficient? And we came up with five building blocks: One, the human resource base, the education and training of our people, getting them to global standards; secondly, the physical infrastructure, the highways, water and sewer systems, the industrial parks and so forth; three, the leadership capacity and the civic institutions to allow people to organize themselves at a local level; four, the creation of dynamic local economies, and I will say a little bit more about that in a minute; and, finally, the historic commitment of the ARC to investing in the health of our people, which is still a problem in parts of Appalachia, to create healthy people.

So around these five building blocks we adopted these five goals. Goal 1: Appalachian residents will have the skills and knowledge necessary to compete in the world economy in the 21st century. Goal 2: Appalachian communities will have the physical infrastructure necessary for sustaining economic development and an improved quality of life. Goal 3: The people and organizations of Appalachia will have the vision and capacity to mobilize and work together for sustained economic progress and improvement of their communities. Goal 4: Appalachian residents will have access to financial and technical resources to help build dynamic and self-sustaining economies. And 5: Appalachian residents will have access to affordable, quality health care.

Under each of these goals we postulated some objectives to help us get there, some benchmarks to help us measure how we are doing. We think it is an ambitious plan but one that, if we all work on it together, we can carry a long way towards implementing.

I think we all know that the relatively modest resources that are generously appropriated to this Commission by the Congress will not be enough to get this plan done, and that is where part of our advocacy role is. We want to work with the people of our communities to help identify Federal funds, State funds, private sector funds, nonprofit philanthropic; we are all going to have to be working together to implement this plan.

1997 BUDGET REQUEST

Getting to the specifics of the budget, Mr. Chairman, as I mentioned, we are requesting the same amount that we had last year, $170 million, which, quite frankly, we think is getting close to a de minimis level for a viable program. We feel like we have tightened our belt and done our share, but we are kind of—as we say in the farming community—we have done down to the hard scrabble of the soil structure.

It would be very difficult, I think, to maintain a viable partnership below the $170 million mark. When you divide the money among 13 States in the highway and the nonhighway arenas, the money gets so small to some of the States that it is difficult to keep them really engaged in the partnership in a creative way. So we would hope that we have done our share of the belt-tightening.

We do renew our request for greater balance between the highway side of the house, at $83.2 million, and the area development side of the house, also at $83.2 million. As you know, Congress last year saw fit to favor the highway side by about $25 million. We are asking once again for balance, and let me say a word about that.

Of course, you know, we would like as much money as we could get on all the work that we have to do. But given limited resources, the administration feels very strongly that you have to work on both sides of the equation. You really have to work on more than putting the highways there, because we are no longer in an era where you say, "build it and they will come." You really have to work on all of the other aspects of economic development like the human resource issues, the training and retraining, getting the labor force up to global standards, working on business development, being sure the infrastructure is in place.

So I come with a strong plea that the committee and the Congress go as far as possible toward allowing us to work not only on the highways but on the area development side, which includes a lot of physical infrastructure as well, as you know, and move toward greater balance.

HIGHWAY PROGRAM

In terms of the highway program, the strategic plan reaffirms strongly the commitment to the central importance of the highway system. In fact, one of our objectives is that within the next decade we would hope that 90 percent of the Appalachian Development Highway System would be open to traffic.

Of the 3,025 miles authorized by Congress as of September 30 of last year, 72 percent was open to traffic and another 4 percent was under construction, so that 76 percent of our corridor system is now either open to traffic or soon will be.

The $83.2 million we are requesting would be almost $80 million for corridors, $2 million in access roads, and $1.5 million for administration. This amount would allow us to work on about 65 additional miles of corridor in terms of construction, purchasing right-of-way, or design work.

We are launching at the Commission a study of the remaining 732 miles, in which we are beginning now to try to update the cost estimates to complete the system, and also to work with our States on trying to establish some priorities among those 732 miles.

We have some major corridors, I know in your State, Congressman Bevill, that have not been completed, a major corridor in West Virginia that has not been completed, but most—and Kentucky—excuse me, Mr. Rogers—in Kentucky as well. These corridors need obviously to move toward completion. Other than those corridors though, a lot of what is left to be built are connectors between corridors that are basically already built.

AREA DEVELOPMENT

In terms of area development, this is where we work on the "everything else" of economic development. The governors have wide flexibility in deploying their resources in this area, so it is hard for us to come to the Congress and say how that money will be spent in specific categories. You kind of add it up at the end of the year and that is how it was spent. It is really determined to a large degree by the governors, but expenditures fall into three basic categories: Funding for physical infrastructure, which includes water and sewer systems, industrial parks, the like; business development, which includes training programs, export promotion programs; and human resource programs, which includes a lot of education and training programs. And we are requesting, again, $83.2 million to go into the nonhighway side, much of that into area development.

LOCAL DEVELOPMENT DISTRICTS

In addition, on the nonhighway side, we are requesting level funding of $4.4 million for our local development districts, which we think is a real success story of the ARC, something that we don't hear a lot about. But when we were created 30 years ago, a lot of Appalachia was characterized by communities being in isolation from each other because of the mountains, a lot of suspicion, not a lot of communication among communities. These 69 local development districts have worked for 30 years to create regional cooperation on economic development in Appalachia, and we want to continue to strongly support them. We consider them valuable partners in the partnership.

SALARIES AND EXPENSES

In terms of salaries and expenses, we are again requesting level funding at $3.645 million. That includes eight positions on my staff, 3 persons in the Inspector General's Office, and then 50 percent of the operating budget of Tom Hunter's staff, the Commission staff.

Finally, let me say that we did respond to the committee's language last year of greater targeting of our resources. The table—that is, the States and the Federal Co-Chairman when we sit together—voted to increase the distressed counties allocation from 20 percent off the top to 30 percent off the top. Now we take our area development allocation, take 30 percent off the top, and that goes to our 115 most distressed counties. That is about $13.5 million.

DISTRESSED COUNTIES

And I think something very unusual in government happens when we do that. When we sit at the table to take that vote, four of our States step aside. New York, Maryland, South Carolina, and Georgia do not have any distressed counties. In a very real sense, they are forfeiting money to help the most distressed areas, and in the entire history of the Commission there has never been a "no" vote on that policy.

So we hope we responded to the committee by increasing that allocation from 20 to 30 percent.

In addition, we are undertaking a more in-depth study of our distressed county program to see if there are further actions that we may take.

CONCLUSION

Once again, Mr. Chairman, we bring you an ambitious plan. We bring you great hopes and great dreams for Appalachia. And we are going to need all the partners we can get, including Congress, to help us do that.

Thank you very much.

[The prepared statement of Mr. White follows:]

STATEMENT OF JESSE L. WHITE, JR.

FEDERAL CO-CHAIRMAN, APPALACHIAN REGIONAL COMMISSION

BEFORE THE

SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT

OF THE

HOUSE COMMITTEE ON APPROPRIATIONS

MARCH 28, 1996

Mr. Chairman and Members of the Committee:

I am pleased to come before this Subcommittee again to discuss with you the work of the Appalachian Regional Commission and to outline President Clinton's budget request for 1997. I am particularly pleased to be joined by our States' Co-Chairman, West Virginia Governor Gaston Caperton, in making this presentation to the Committee. We appreciate the support that you and this Subcommittee have given the Commission through the years.

President Clinton's budget request for FY 1997 is $170 million. This includes $83.2 million for the Appalachian Development Highway Program, $83.2 million for non-highway area development programs, and $3.6 million for the salaries and expenses requirements. This balance between highway and area development funds reflects the Administration's continuing belief that both are equally essential to the development of our communities and their people.

This represents level funding for ARC relative to our FY 1996 appropriation. This suggests that, in an era of even tighter caps on discretionary domestic spending, the President continues to believe in ARC's regional approach and believes that support for ARC is in the national interest.

Today we come before you proud, excited, and renewed by the recent unanimous adoption of an ambitious new strategic plan for the Commission. The culmination of eighteen months of hard work, our strategic plan paints an updated portrait of Appalachia as a region of contrasts and lays out a roadmap, that, if followed, will make its people globally competitive and its communities more self-sufficient. It advances the theme of my chairmanship, which is to create more entrepreneurial communities and to empower enterprising people.

As did the initial report which led to the creation of ARC by Congress in 1965, this new plan strikes a balance between state flexibility, which is unique to the ARC partnership, and a structure for ARC investments. As you recall, ARC is a full partnership between the federal government and the 13 states we serve. The federal appropriation is matched by state, local and private funds, and the states underwrite 50 percent of the administrative costs of the Commission.

As the Federal Co-Chairman of ARC--appointed by the President and confirmed by the Senate--I have one-half of the votes on the Commission; and the 13 governors, represented here by Governor Caperton, have the other half. No policy can be set or any money spent unless the federal representative and a majority of the governors reach agreement. In many ways our model was thirty years ahead of its time when ARC was created. It recognizes that much of the knowledge and creativity exist at the state and local level, yet it assures that the national interests are fully represented in all decisions.

I am pleased to report that our new strategic plan--upon which the President's 1997 budget request for ARC rests--displays the vitality of this partnership at its best. The states and I, along with our local partners (the local development districts) jointly tackled the arduous process of creating a new vision for our region. Rather than hire a consulting firm or group of "outsiders" to draft this plan, we took the harder road of doing it ourselves, of getting out into the region and listening to the people of Appalachia.

Through four well-attended interstate town meetings, thirteen focus groups across Appalachia, and a region-wide satellite town meeting with more than 50 downlink sites, we heard from over 2000 Appalachians as they described their dreams for their children and their hopes for their communities. We contracted for basic research on the state of the Appalachian economy, consulted with experts on a wide range of issues from health care to worker training to telecommunications, and held multi-day retreats with state, federal and local representatives to review the mountains of data these inquiries yielded.

Working together, the states and I crafted a mission statement for the agency, adopted a set of regional goals, and articulated specific objectives under each goal. To achieve the objectives, the Commission will deploy a rich blend of region-wide and state-specific strategies that best engage the full resources of the ARC partnership.

I note, Mr. Chairman, that in developing this plan we at ARC are well ahead of the game in meeting the requirements of the Government Performance and Results Act (GPRA). Our new plan goes a long way toward satisfying the strategic planning activities Congress prescribed in that Act, and this year we will be moving to complete the remaining activities prescribed by GPRA.

As we have defined it, ARC's mission is **"to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and improved quality of life."**

This mission indicates *first* that the future of Appalachia lies with the people themselves--not with leaders in Washington or in state capitols--but that they need partners and advocates to bring this region so long neglected into the mainstream of the American economy. *Second*, our mission reaffirms that our ultimate goal is to create a level of self-sufficiency that will enable the special ARC assistance to be phased out eventually. Unfortunately, that job is not yet done, and we must keep the faith with our people until it is.

REGIONAL "BUILDING BLOCKS"

The strategic plan, which the Governors and I unanimously adopted in early February, lays out five goals which are based on the essential "building blocks" for creating more vibrant, dynamic, and self-sustaining regional economies. These are the things that the people of the region themselves have told us they need our help with. They will guide the annual investment packages that our 13 states bring to the Commission.

- **Developing a Knowledgeable and Skilled Population.** The prosperity of the region and its ability to contribute significantly to the American economy depend on improving access to the type of education and training that can create a globally competitive workforce. We must focus our resources on state-of-the-art training and retraining, reducing the school dropout rate, increasing enrollment in postsecondary education, expanding access to school-to-work transition programs, and ensuring that all Appalachian youth arrive at school ready to learn.

- **Strengthening the Region's Physical Infrastructure**. As this Committee has long recognized, a sound physical infrastructure is a prerequisite for long-term economic growth. Completion of the corridor highway system, access to safe drinking water, improved wastewater treatment facilities, well-equipped industrial sites, and better deployment of telecommunications technology–all represent the types of investments the Commission believes are essential for the region's future.

- **Building Local and Regional Capacity.** Leadership and civic capacity are prerequisites to progress and development. This "social infrastructure" is necessary for our people to do the kind of strategic thinking and mobilization of their energies at the local level that produces self-sustaining economies... and enabling them to take charge of their economic destiny.

- **Creating a Dynamic Economic Base.** The global economy is creating new opportunities for Appalachian communities, and technological advances are opening doors to increased economic activity. Yet persistent regional barriers remain. The region calls for a more dynamic and diverse economic base–nurtured by new capital and technical resources (particularly for new business start-ups), expanded technology transfer, regional approaches to development, and entrepreneurial innovation. The vitality displayed by such a dynamic economy offers the best remedy for the high poverty rates, low per capita income and employment rates, and inadequate amounts of local wealth that have stymied the region, particularly its nonmetropolitan areas.

- **Fostering Healthy People.** In many ways, the health of its people is a region's most important measure. Without healthy people, economic activity is restricted. Appalachia continues to lag behind the nation in access to affordable, quality health care. Creating self-sustaining economic

> development will require continued reductions in infant mortality rates and the development of integrated health-care delivery systems designed to provide universal access and service at a reasonable cost across Appalachia.

We are now moving to establish a system of benchmarks--"indicators of progress" I like to call them--to assess periodically our success in moving toward the vision in our plan. At our Commission meeting last month, your former colleague, Virginia Governor George Allen, underscored the importance of including benchmarks and measurements, and I agree with him. Each year we plan to revisit the plan, review our progress, and consider any modifications that may be necessary to keep it aligned with the region's changing economy. As you can see, Mr. Chairman, this is to be a flexible document, one that permits the Commission to respond appropriately as the region experiences new challenges and opportunities.

BUDGET SUMMARY

The President's budget request for FY 1997 of $170 million sets us on the path of achieving this new vision for Appalachia, of creating entrepreneurial communities in Appalachia based on the development and flourishing of enterprising people. It reaffirms the value of ARC's unique regional approach to economic development, and it reflects a balance between our historic emphasis on highway construction and the critical need to invest in the people of the region.

Achieving our vision for Appalachia will require more than this modest annual federal investment in ARC. It will depend in large part on our ability to engage the skills, energy, and financial resources of a broad network of partners--other federal agencies, the private sector, non-profit groups, local community organizations--in effect rekindling the national enthusiasm for moving this region into the economic mainstream. It will require the total commitment of all of us who care about this region to be creative, flexible, and innovative in the way we do things.

But the ARC investment is, quite literally, the catalyst--the "glue money" we like to call it--which can make all of these other things happen. **I must say, Mr. Chairman, that I believe the budget we are presenting you today represents the minimum investment necessary to keep us on the path toward our vision.** It is the threshold below which it becomes practically impossible to maintain a strong, viable regional development program. Simply put, at lower budget figures, the dollars are so small that it becomes exceedingly difficult to keep all of our states actively engaged in our collaborative regional effort. And yet, as we learned throughout our strategic planning process, it is the Commission's multi-state, regional approach that is the key to Appalachia's future.

Even with an adequate level of federal support, realizing our region's vision for itself will also take some plain good luck. A number of the factors that can affect our success are simply beyond our control. A resurgence of inflation, major swings in the value of the dollar, new patterns of international trade or tariff barriers, natural disasters like the floods that swept through Central Appalachia a couple of months ago--all sorts of external factors will affect our ability to reach our goals.

But I am persuaded that the people and communities of Appalachia have the commitment--and resiliency--to respond to these external shocks so long as we do not break faith with the nation's commitment to help the region overcome more than a century of neglect and sit as a full partner at the table of American economic prosperity.

HIGHWAY PROGRAM

From ARC's creation, highways have been central to the work of the Commission. The region's isolation--a product in part of treacherous terrain, narrow winding roads, and low travel speeds--explains much of Appalachia's relative economic stagnation. Because the interstates had largely bypassed the region, Congress expressly authorized a regional highway system based not on traffic counts but on its development potential--its ability to open up the region, connecting communities and workers to national and international markets and the prosperity that flows from this expanded commerce.

Our strategic plan reaffirms the importance of linking this region with broader avenues of trade. The plan sets an objective of having at least 90 percent of the highway system open to traffic within the next decade. Over thirty years ago the nation made a commitment to the people of this region that a first-rate highway system would bridge the barriers imposed by the mountains. We believe that commitment must be honored.

As of September 30, 1995, 2,298 (76%) of the 3,025 miles authorized by Congress for the Appalachian Development Highway system had been contracted for construction, of which 2,177 miles (72%) had been completed and open to traffic. Six of the 24 corridors have now been completed.

The budget request for the highway system is $83.2 million. This includes $79.7 million for corridors, $2 million for access roads and $1.5 million for administering and planning the program. As the subcommittee knows, for the highway program we transfer funds to the Federal Highway Administration, which oversees the actual construction of our corridor system. Our FY 1997 budget request includes funds for FHwA's administration of the program.

The funds for 1997 would be used to assist the Appalachian states in contracting for construction, right-of-way purchase, or engineering for a portion of some 732 miles remaining for construction as of September 30, 1995. With the requested funds, it is expected that by the close of 1997, a total of 2,330 miles (77%) will have been placed under construction, of which 2,220 miles (73%) will be complete. We anticipate that the FY 1997 request will result in placing 10 more miles under contract for construction, acquiring right of way for 25 additional miles, and conducting engineering and design work for 30 more miles.

The Commission is currently undertaking a thorough review of its highway program, assessing the progress to date, informally updating the anticipated costs to complete the system, and identifying priorities to guide construction and engineering activities over the next few years. The system has 848 miles in various stages of development, with most of this in short segments of 10-30 miles sandwiched between completed sections. We will be looking at which of these, as well as the small number of uncompleted major segments, should get the most attention in order to ensure maximum benefit from the system. The states will be working closely with the Commission as we establish these priorities. In addition, we will be working closely with the Federal Highway Administration to develop a multi-year plan for ensuring the completion of the highway system. We will certainly keep the Committee informed as the study goes forward.

With the Appalachian Development Highway System now almost three-quarters complete, its impacts are considerable: industries and businesses have grown along the highways; enterprises not directly along the highways have been strengthened by the dramatic opening up of the region by the highway system; coal and other products are better able to reach domestic and foreign markets; and the costs and difficulty of extending health, education, and other services in the region have been reduced significantly.

A 1993 study by a professor at the University of North Carolina-Charlotte found a strong correlation between income growth and the presence of improved highways between 1965 and 1990 in Southern and Northern Appalachia. Central Appalachia had a weaker correlation between income growth and improved highways, which suggests the need for other related investments in the region's poorest areas. This study, one of the more rigorous analyses of the impact of highways on growth, underscores both the value of the development highway approach and the ongoing need by many Appalachian communities for additional investments in order to capitalize on the highways' potential for growth.

NON-HIGHWAY PROGRAMS

The non-highway, or area development, program request--$83.2 million--anticipates a closer balance than currently exists between highway and non-highway funds. The Administration strongly believes that while a good network of highways throughout the region is a necessary prerequisite for economic growth, highways alone will not produce long-term economic development in many Appalachian communities.

Because of high costs--often in excess of $10 million per mile--the limited ARC dollars available to many of our states will produce no more than a mile or so of new highway per year. Accordingly, many governors have concluded that they can achieve greater benefits for their states by allocating more of ARC's funds to our non-highway activities. A million dollars invested in updated industrial parks, local wastewater treatment systems, or workforce training programs may yield more immediate and longer-term consequences for Appalachian communities. The Administration's FY 1997 reflects this reality, while still acknowledging the primacy of highway construction in states like West Virginia, Pennsylvania, Alabama, and Kentucky.

Program Areas

Although the actual mix of projects funded by the Commission in any given year is determined by the individual investment packages submitted by each of our 13 governors, the Commission's non-highway activities fall into three broad categories: physical infrastructure, human resource development, and business development. Taken together, they offer the flexible, comprehensive approach to regional development that is the hallmark of ARC's success and uniqueness.

- **Physical Infrastructure**. The goal for ARC's physical development activities is for Appalachian communities to have the physical infrastructure necessary for self-sustaining development and improved quality of life. The physical infrastructure category emphasizes water and wastewater systems, commercial and industrial infrastructure, and housing. These projects are characterized by grass-roots support and are locally determined by each community's leadership. Most of them leverage substantial private investment. A recent survey of a sample of 1654 ARC projects in this area indicated that between 1983 and 1996, ARC's physical infrastructure investments through those projects had enabled more than $7.3 billion to be invested by the private sector, yielding a ratio of $47 in private investment for every $1 of ARC support.

- **Business Development**. Under ARC's strategic plan, the goal is for Appalachian residents to have access to financial and technical resources to help build a dynamic and self-sustaining local economies. Projects under this category include export development activities, capitalization of revolving loan funds, technology transfer and modernization efforts, entrepreneurial education, the development of industry networks, and support for tourism activities.

- **Human Development.** The goals in the human development area stress that Appalachian residents will have the skills and knowledge necessary to compete in the world economy of the 21st century, will have the vision and capacity to mobilize for sustained economic progress and will have access to affordable, quality health care. Human resource projects range from workforce preparation to telemedicine to dropout prevention to leadership development.

Regional Initiatives

Last year I shared with this committee my excitement about three new regional initiatives that we had just launched--telecommunications, internationalization of the economy, and local leadership and civic capacity. I am pleased to report that we now have all three fully in place and are starting to fund innovative and challenging projects in each area. As I see these initiatives go forward, I become more persuaded that the kind of regional approach that these initiatives embody is the only way we are going to successfully tackle Appalachia's problems.

The budget for FY 1997 projects $6 million to continue the work of these regional initiatives. When we adopted these initiatives last year, I promised the Commission that we would make a multi-year commitment to them, and this budget honors that commitment.

As we have gone forward with our strategic planning process, I have become more persuaded that the future for Appalachian communities rests in our ability to foster and nurture entrepreneurship across the region. As North Carolina Governor Jim Hunt noted at our Commission meeting last month, many small towns lack the resources to support start-up companies. It is important, he told the Commission, to find ways to get help for these beginning entrepreneurs. I believe he is exactly on target, and I will be challenging the Commission to allocate additional funds to embrace a new regional initiative in entrepreneurship.

Local Development Districts

Local development districts (LDDs)--multicounty planning and development agencies--are an essential element of the ARC program. Serving all portions of Appalachia, these 69 districts work with local governments and citizen groups across the region to determine local needs and priorities, craft regional development plans, and, increasingly, deliver a myriad of local services on a regional basis. In recent years the

LDDs have expanded their role by implementing regional telecommunications networks, developing multi-jurisdictional geographic information systems, and managing small business loan funds and enterprise development programs. The result has been to significantly increase the prospects for economic growth across the region.

The FY 1997 request for support of the LDD program is $4.4 million, the same which was requested for 1996. Many of the Appalachian states allocate additional funding to their LDDs from the state's area development allocation to offset LDD operation expenses.

Salaries and Expenses

The request for salaries and expenses is $3.645 million. This includes $1.245 million for the Federal Co-Chairman's staff and office of the inspector general and $2.4 million for the federal share of the Commission's administrative budget. With the $1.5 million for highway program administration and $680,000 for non-highway program administration by other agencies, the federal cost of program administration will total $5.825 million, or about 3 percent of the total ARC budget. Mr. Chairman, I think you will agree that those administrative costs reflect an agency that operates in a very lean and efficient way.

TARGETING OF RESOURCES

Mr. Chairman, I want to assure you and the members of the Committee that the Commission has heard your suggestions and those of our authorizing committee to the effect that we should better target our resources to those areas of Appalachia that have the greatest need. The Commission is moving to do precisely that.

The Commission recently voted to set aside 30% of our area development funds to be reserved solely for our 115 most distressed counties. These are counties whose per capita income is no more than two-thirds of the national average, whose poverty rates are more than 150% of the national average, and whose unemployment rate is at least 150% of the national rate.

In doing so, the Commission increased this set-aside from 20%, which been the level for the past several years. I think it important to note that when we allocate these funds to the distressed counties, four of our states (New York, Maryland, South Carolina, and Georgia) voluntarily "step aside." Those four states currently have no distressed counties, so they get no benefit from this added targeting. Indeed, in a very real sense, they forfeit money which would otherwise come to them were this 30% not taken "off the top" of the regular state-by-state allocations. Yet they support the Commission's action in targeting these funds to distressed counties. I think that offers strong testimony to the strength of ARC and to the value that all of our states place on pursuing regional approaches to Appalachia's problems. There has never been a "no" vote to this special allocation for distressed counties.

The states have also recommended that the Commission look more carefully at implementing a more comprehensive "distressed counties program," something that goes beyond simply setting aside dollars and focuses instead on what steps the Commission can take to ensure that our policies lead to lasting improvement in the economic prospects of these distressed areas.

We have already held a series of working group discussions on distressed counties and areas of greatest need involving the states, the Federal office, and the Commission staff. We are looking at options such as strengthening multi-jurisdictional approaches, consolidating services, better deploying appropriate technology, and greater partnering with other agencies and the private sector. We will determine our priorities by working with the local communities and helping them identify goals, objectives, strategies, and benchmarks. We hope later this year to take a full-blown proposal to the Commission for review and approval. We will definitely keep the Committee informed of our plans in this area.

While we are moving to develop better policies for our communities that are at the distressed end of the economic scale, we are also re-examining our policies that affect so-called "competitive counties," those areas that currently perform near national averages on a variety of economic performance indicators. We know that this is something the Congress has also expressed a strong interest in.

At a time of very limited federal resources, all of us recognize that we must do a better of job of ensuring that the Commission's funds go to those areas that have the greatest need.

In conclusion, Mr. Chairman, we believe that through our strategic planning process we have charted an important new course for the Commission. The President's budget advances that cause and keeps faith with the nation's promise to the people of Appalachia. I ask that you and the Committee join with our thirteen governors, the 69 local development districts, and our countless partners and friends in a renewed commitment to the people and communities of Appalachia, as we face the future with a proud past and a new vision.

Mr. MYERS. Thank you, Chairman White, for your very fine statement.

Governor Caperton, we are pleased to have you today before our committee.

GOVERNOR CAPERTON'S OPENING STATEMENT

Governor CAPERTON. Thank you, Chairman Myers. It is indeed my pleasure to come before your committee today on a subject which is of real vital importance to my State and to the other Appalachian States.

I have been fortunate to follow a tradition that we have in West Virginia. I think since 1965, every West Virginia governor has served as States' Co-Chairman, and they waited until the very last moment for me because, as you and Congressman Bevill are leaving—I leave in January myself—so they saved it to the very last.

Mr. BEVILL. If you hear of any jobs that are available, Mr. Myers and I would be appreciative.

Governor CAPERTON. You and I may be competing. I am looking for a job, too.

Mr. MYERS. We don't want any heavy lifting.

Governor CAPERTON. Your understanding of this region Mr. Chairman, and particularly of the people of this region is deeply appreciated by all of the governors.

We are particularly appreciative also of Congressman Bevill and Congressman Rogers, who have always given us the support and strength that we need, and are appreciative of all of the Members, particularly last year when much of this Appalachian Regional Commission was at real risk, and we know that it is your leadership that allowed us to continue.

I am pleased to report to you this morning that the Appalachian governors fully support the $170 million that the President has requested. This is consistent with the current appropriation level and I think provides sufficient but never enough funding, as you know, Congressman, to operate an effective program.

We agree with Dr. White that the maintaining of this level is really key when you consider that it has to be spread between 13 States. I cannot overemphasize the importance of this partnership. The ARC is the only agency in which the governors are full partners and share equally with the Federal partner all decisions on policy matters, rules and regulations, and projects. It is why there is so little bureaucratic red tape and why the administrative costs are low and why the governors currently, eight Republicans and five Democrats, are willing to share equally with the administrative costs.

In this era of returning power to the States and local officials, ARC is really 30 years ahead of where everyone else is. We have taken a thorough examination of the ARC program, as Dr. White so well said. We put together a new strategic program in which thousands of local official and community leaders came together and helped us put that program together.

We have adopted three regional initiatives which we think are important—in export trade, telecommunications, and civic leadership. We have reinforced our commitment to the distressed counties, giving them more monies. We have undertaken a review of our highway program to ensure that we continue our progress toward completion of the Appalachian Highway System.

I want to emphasize that these innovations and new directions—the strategic plan, the regional initiatives, the higher level of funding for distressed counties, and our refocus and study of the highway program—in no way reflect negatively on previous work done by the Commission. To the contrary, they reflect the Commission's continuing ability to respond to changing needs and changing times in ways that prove the region is ready to move ahead and look to the future.

The fact is that the Appalachian Regional Commission in 31 years has literally changed the face of Appalachia from an isolated region of profound poverty to a region of contrasts, moving rapidly towards parity of economic opportunity with the Nation as a whole. I believe that we are headed in the right direction, and I am proud of the progress that we have made.

As I travel through our State, I see every day progress and important contributions that the Appalachian Regional Commission has made to my State. Whether it is in health care in Kanawha County, or clean water in McDowell County, or vocational education in Boone County, or a new sewer system in Wood County, or youth entrepreneurship training throughout the State, the programs of the Appalachian Regional Commission are making a huge difference in the lives of our people and in their hopes for the future.

As a result of these ARC investments, the private sector employment has grown significantly. As an article in the USA Today recently noted, between 1990 and 1994, jobs in West Virginia have grown at 6.8 percent compared to a national growth of 4 percent, and we give the ARC a lot of credit for its support in helping our region make this progress.

ARC's small investments leveraged many times often have meant the difference between people having full stomachs and being hungry, good health and sickness, good jobs or enforced idleness, hope or despair, life and death for many of our citizens, and I can tell you that every governor will give you the same kind of examples in their area.

Many years ago my good friend, Senator Jennings Randolph of West Virginia, and Republican Senator John Sherman Cooper of Kentucky joined together to pass the Appalachian Regional Development Act. They were driven by the report authored by Franklin Delano Roosevelt, Jr., and I would like to quote from that report. I think it is worth remembering.

"Graphs and tables can hardly relate the acutely personal story of a child in a remote valley, his horizon of opportunity limited to the enclosing hills; nor the despair of his father who, idled by the forces beyond his control and seeing no prospects of future employment, must live month in and month out the vision of that child repeating his own history."

Today, thanks to the Appalachian Regional Commission and Congress, which continues to honor its solemn commitment, we are redrawing that picture of despair and we are painting a picture of hope, hope that one day every child in Appalachia will have unlimited horizons and every region of Appalachia will be able to provide those horizons.

We are, Mr. Chairman, on the threshold of completing a new picture. We have come a long way in what is really a relatively short time, but we have a long ways to go, and that child of despair in 1964 is now an adult working to enable his children to see those unlimited horizons that we hope that he will have.

With your help, his children will finally see that unlimited horizon. With your help, we will continue to paint that picture of hope in the foreseeable future and we will be able to look with pride on a government program that has truly worked as it was intended to work, a government program that proved that, when we all work together as partners, our ability to make a difference not only for our communities and for our region but for our Nation is indisputable and unparalleled.

I deeply appreciate the work that you have done, the support that you have given, not just for the 13 governors but, much more important, for the people of Appalachia who have a new sense of hope because of the investment you have made in their region. And I deeply appreciate your support.

[The prepared statement of Governor Caperton follows:]

TESTIMONY OF HONORABLE GASTON CAPERTON
GOVERNOR OF WEST VIRGINIA AND ARC STATES' CO-CHAIRMAN
to the
APPROPRIATIONS SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT
U.S. HOUSE OF REPRESENTATIVES
HONORABLE JOHN MYERS, CHAIRMAN
MARCH 28, 1996, 10 A.M.

Thank you very much, Mr. Chairman. It is a pleasure to be here this morning to speak with you about the vital importance of the programs of the Appalachian Regional Commission.

I am particularly proud to follow in the tradition of West Virginia governors. Not only is West Virginia the only state entirely within the boundaries of Appalachia, but West Virginia is the only state to have had every one of its Governors since 1965 serve as States' Co-Chairman of the ARC. I am proud to continue this record of service and of strong bi-partisan support for the ARC.

The Members of this Committee embody that bi-partisan support. Your understanding, Mr. Chairman, of the needs of our region and your selflessness in supporting our efforts despite being from outside the Region is appreciated by all the Governors and by the people of Appalachia.

Of course, all the Governors are enormously grateful, as well, for the unyielding leadership and support of both Mr. Bevill and Mr. Rogers, two of the finest Appalachian Congressmen of this or any era. We know that the ARC would not be here today were it not for both of you.

And we are grateful for the support of all the Members of this Committee who stood up for the ARC when it's fate was on the line last year.

Mr. Chairman, I am pleased to report to you this morning that the Appalachian Governors fully support the President's FY 1997 budget recommendation of $170 million for the ARC. This is consistent with the current appropriated level, and it provides sufficient funding to enable us to operate an effective program.

But, we also agree with Dr. White that this is about the bottom line in terms of funding. These funds are allocated among 13 states, and when you get done cutting the pie, some states are left with just slivers of that pie. So, I respectfully urge you, on behalf of all 13 Governors, to recognize the importance of maintaining this level of funding, as well as providing the maximum possible flexibility to the Commission in allocating these funds, in order to maintain the integrity and effectiveness of this unique partnership.

I cannot overemphasize the importance of the partnership. The ARC is the only agency in which the Governors are full partners. We share equally with our Federal partner all decisions on policy matters, rules and regulations, and projects. It is why there is so little bureaucratic red tape at the ARC, why the administrative costs are so low, and why the Governors--currently eight Republicans and five Democrats--are willing to share equally the Commission's administrative costs.

In this era of returning power to state and local officials, the ARC truly is 30 years ahead of its time, because it returns that power in a way that maintains a meaningful but non-intrusive Federal role. And, I might say, that Dr. White's leadership during his two years in office has strengthened and invigorated this partnership.

We have, as a result of his leadership and that of then Governor Jones of Kentucky, my predecessor as States' Co-Chairman, undertaken a thorough re-examination of the ARC program. We have put in place, by unanimous vote, a new strategic plan which incorporates the views of thousands of officials and community leaders throughout the Region. It is a plan which sets goals and objectives for the Region, but leaves it to the individual states to determine the strategies that will work best for them. It represents the partnership as it was designed to work.

We have adopted three regional initiatives--in export trade, telecommunications, and civic leadership--which focus ARC resources creatively on these three major issues. Again, however, it is up to the Governors to decide how to respond to these initiatives in ways that address the unique needs of each state.

We have reinforced our commitment to the most distressed counties in our region by allocating a higher percentage of our funds to the nine states which have such counties. It is a symbol of the Governors' commitment to the partnership that four of my colleagues are willing to sacrifice funds so that we can increase our efforts in those counties with the greatest need. And it is a symbol of our bi-partisanship that two of the Governors who sacrifice are Democrats and two are Republicans.

And we are undertaking a review of our highway program to insure that as we continue our progress toward completion of the Appalachian Development Highway System, we do so in a manner that will have the greatest economic impact on the Region. Again, of course, this review will proceed with the full involvement of the Governors.

I want to emphasize that these innovations and new directions--the strategic plan, the regional initiatives, the higher level of funding for distressed counties, the review of the highway program--do not reflect negatively on the previous work of the Commission.

To the contrary, they reflect the Commission's continuing ability to respond to changing needs and changing times in ways that provide a regional context for addressing individual state needs.

The fact is that the Appalachian Regional Commission in 31 years has literally changed the face of Appalachia--from an isolated region of profound poverty to a region of contrasts moving rapidly toward parity of economic opportunity with the nation as a whole. I believe you heard last year about the twin county study funded by the National Science Foundation and conducted by Dr. Andrew Isserman of West Virginia University. It compared the progress of our Appalachian counties from 1969 to 1991 with statistical twins from outside the Region. The study found that the Appalachian counties grew faster than their twins in per capita income, population, and total earnings. And he attributed that growth largely to the work of the Appalachian Regional Commission.

More to the point, I see the changes every day as I travel through the mountains of West Virginia. Whether it's health care in Kanawha County, clean water in McDowell County, vocational education in Boone County, a sewer system in Wood County, or youth entrepreneurship training throughout the state, the programs of the Appalachian Regional Commission are making a huge difference in the lives of our people and in their hopes for the future.

Through Fiscal Year 1994 the ARC had invested $250 million in non-highway projects in West Virginia--in health care, child development, education, community development, planning and technical assistance and other activities. We have matched that locally with more than $360 million. With the addition of other Federal funds, the total investment in our state has been over $1 billion. Highways have added another $1 billion to that total. As a result of these ARC investments, private sector employment has grown significantly. As an article in USA Today recently noted, between 1990 and 1994 jobs in West Virginia grew by 6.8%, compared to the 4% national growth rate.

ARC's small investments, leveraged many times over, have often literally meant the difference between full stomachs and hunger, good health and sickness, good jobs and enforced idleness, hope and despair, life and death for many of our citizens. And every one of my colleagues in the twelve other states can tell a similar story.

Thirty-one years ago, when Democratic Senator Jennings Randolph of West Virginia and Republican Senator John Sherman Cooper of Kentucky, joined together to pass the Appalachian Regional Development Act, they were driven by the 1964 Report of the President's Appalachian Regional Commission, which had been chaired by Franklin D. Roosevelt, Jr. That report poignantly described an Appalachia which tugged at the heartstrings of a nation. It read, in part:

"Graphs and tables can hardly relate the acutely personal story of a child in a remote valley, his horizon of opportunity limited to the enclosing hills; nor the despair of his father, who, idled by forces beyond his control and seeing no prospects of future employment, must live month in and month out with the vision of that child repeating his own history."

Today, thanks to the Appalachian Regional Commission and a Congress which continues to honor its solemn commitment, we are redrawing that picture of despair, and we are painting a picture of hope--hope that one day every child of Appalachia will have unlimited horizons and every community of Appalachia will be able to provide those unlimited horizons.

We are, Mr. Chairman, on the threshold of completing that new picture. We have come a long way in a short time. But you cannot reverse a century of neglect and isolation in a single generation. That child of despair in 1964 is now an adult working to enable his children to see those unlimited horizons that his father could not show to him.

With your help, his children will finally see those unlimited horizons. With your help we will complete that picture of hope in the foreseeable future, and you will be able to look with pride on a government program that truly worked as it was intended to work, a government program that proved that when we all work together as partners, our ability to make a difference, not only for our communities and for our region, but for our nation as well, is indisputable and unparalleled.

Thank you very much.

Mr. MYERS. Thank you, Governor Caperton, for a very fine statement.

Mr. Hunter, do you have a statement?

Mr. HUNTER. No, I don't.

Mr. MYERS. The success in obtaining funds from Congress has been no accident. This committee has always had a strong representation from Appalachia, from former Chairman Tom Bevill, our good friend from Kentucky—who is not bashful when it comes to asking for money either—Mr. Rogers. Anything bigger than a bathtub down there has a reservoir on it in Kentucky. And they have even learned to play basketball now.

In any event, we appreciate very much your testimony, and at this time, since Indiana has nothing in Appalachia, I am pleased to yield to Mr. Bevill.

MR. BEVILL'S OPENING REMARKS

Mr. BEVILL. Thank you, Mr. Chairman.

And I would like to say that Chairman Myers, you know, has been our friend. He has been a solid supporter of this program all the way, although it doesn't come close to touching his State. We couldn't have any better cooperation and support than we have had from John Myers and Mr. Rogers, and I especially appreciate them.

Mr. MYERS. Thank you.

Why do they wait until the last year to say that?

Governor CAPERTON. It is always that way, isn't it?

Mr. BEVILL. We didn't want to wait until your funeral, John.

Governor CAPERTON. Doing it a little early?

Mr. BEVILL. Congressman Myers and I were sworn in the same day 30 years ago, and we are leaving the same day. We have worked together all of these years.

Mr. MYERS. It took me 28 years to get this gavel. It only took him eight. He was a faster worker than I was.

Governor CAPERTON. We were a little distressed when that occurred, some of us.

Mr. BEVILL. I don't know what the significance is, but I noticed that his gavel is twice as big as the one I had.

Mr. MYERS. It takes more.

Mr. BEVILL. Governor, you and your State have just been great on this program. Of course, yours is the only State where the full State is a part of the Appalachian program.

Governor CAPERTON. Yes, sir.

Mr. BEVILL. And I am very impressed with the plans that you have set forth, Mr. White. We appreciate the tremendous job that you are doing. But this is very good. I think this is real good, and I am very impressed with it.

You know, it is great to be flying over the Appalachian area, and you do see the difference. It is making a difference. Our health program that you mentioned, of course, is one example. Just within the last few years, every human being is within 30 minutes of some type of health care, for the first time in the history of the Appalachian area. And some of those are little rural health clinics, with just a registered nurse there. But they have access to a doctor, and I know that they will come 1 or 2 or 3 days a week. Maybe a dentist I know is putting in a day or two a week.

As the 1965 act creating this program intended, we are giving the people in the Appalachian area the opportunity to have an equal opportunity in health, education, jobs, and development; certainly it is moving along.

And the focus that you are making on the counties that are still needing so much more help than others, I think, is good. So I just commend you.

I notice that your breakdown of the funds certainly makes a lot of sense. The $83,180,000 request for highways is about the same for area development. Of course, I am sure you would not have any objection if we added some to the highway program, would you?

Governor CAPERTON. No, sir. We would appreciate that.

Mr. BEVILL. I thought that. I wanted to be sure we were on the same wavelength.

Governor CAPERTON. Yes sir, you and I are absolutely on the same wavelength.

Mr. BEVILL. Mr. Chairman, I believe that is all I have at this time. Let's see. I did have a question or two written down here, but I will stop at this point. I know that we are under the 5-minute rule.

Mr. MYERS. Mr. Rogers?

Mr. ROGERS. Thank you, Mr. Chairman.

Mr. MYERS. Do you suppose he will be brief?

Mr. BEVILL. Why, he is always brief.

MR. ROGERS OPENING STATEMENT

Mr. ROGERS. Mr. Chairman, thank you for the time, and I do promise to be as brief as possible.

Mr. MYERS. You have plenty of time.

Mr. ROGERS. First, I want to take a moment, like the others, to recognize and thank Tom Bevill and John Myers, who have shepherded the funding for this program over the years—most of the years, frankly, of the ARC's existence. I don't recollect when Tom Bevill became chairman. Maybe he would remind us what year that was.

Mr. BEVILL. The same time Jimmy Carter was sworn in. And I don't recall—what year was that?

Mr. ROGERS. January of 1977.

Mr. BEVILL. That is it. There wasn't any connection, but that was the same time.

Mr. ROGERS. For all those years, Tom Bevill nurtured the funding for this organization, and not only that, but increased it and worked with it and worked with his counterparts on the Senate side; and, of course, John Myers right beside him all the while, doing the same thing, and then, beginning last year, taking over as chairman of this subcommittee and doing the same thing; and the most difficult, probably, time that we have ever had, last year, this current fiscal year.

So the region owes these two men a lot. We all owe these two men a lot for being the dedicated public servants that they are, not only on the ARC but for many of the other—most of the other functions of this subcommittee.

So, Tom and John, we owe you a lot, and whatever you do after you leave this place, bear in mind that you will be remembered a long, long time by not just us but mostly and most importantly by the people in the Appalachian region.

Mr. MYERS. Thank you. Thank you.

Mr. ROGERS. And we mean that very sincerely.

Mr. BEVILL. Thank you. And, Mr. Chairman, if it is in order, I would like to extend the gentleman's time and not restrict him.

Mr. MYERS. I think he has just yielded his time to you.

Mr. ROGERS. Gentlemen, we are glad to have you here.

We have noted from across the border in Kentucky the great work that has gone on in West Virginia over these last several years, and I, too, noticed the story—it was in USA Today or some national publication over the last few days—of the progress that is taking place in your State in terms of creating jobs and improving the economy through a very aggressive recruitment program. A lot of us are watching what you are doing over there, trying to duplicate it across the river.

So congratulations, and thank you for being here today, and thanks, of course, for your work on ARC.

Dr. Jesse White has brought a fresh vision to the ARC, and, frankly, we needed it. It had been said around here on the Hill for several years before last year's fight that the ARC perhaps needed to open the doors and let some fresh air in and rethink which way we needed to go, or wanted to go, or could go—not that what had been done in the past was not important or progressive, because obviously it has been, but we did need to rethink which way we wanted to go. And I think this strategic plan that Dr. White has produced was precisely the right thing to do.

STRATEGIC PLAN

I commend you on putting that strategic plan together and on the contents of it. You brought in grass-roots people from throughout the region. The history and the purpose and the modus operandi of the ARC is to get grass-roots people involved in solving their problems, and you did that.

I think the overall direction of the new strategic plan, while I have some reservations about minor portions of it, is the right way to go.

Mr. WHITE. Thank you.

Mr. ROGERS. And Tom, to you and your staff and the others who are involved in the development of this plan and the implementation of it, our best wishes to you.

Mr. HUNTER. I appreciate that.

Mr. ROGERS. I think we are off on the right course here, and Dr. White came along just at the right time, in my opinion, and has marshaled the troops behind an embattled ARC, embattled really for the first time in its history. You came through with flying colors.

Now, about that plan. The objectives are, of course, quite specific and quite ambitious. For example, the plan calls for all Appalachian communities to have access to safe drinking water and sanitary sewage and wastewater systems within the next decade. That is pretty ambitious.

Another example: an integrated health care delivery system designed to provide universal access and comprehensive service in 60 of the region's distressed counties. That is a pretty tall order, considering the fact that in my area, for example, there are very high percentages of homes without plumbing and low percentages of the population served by public sewage in a portion of my district.

For example, in Lee County, Kentucky, 3.9 percent are served by sewage facilities; Knott County, 8.5 percent. Medically, my area is extremely underserved. In spite of that, last year the Congress cut the funding for the ARC by 40 percent.

Now, how can we make the kind of progress that you are talking about in your plan, especially since we have cut your funding by such a huge percentage, Dr. White?

Mr. WHITE. Well, you know, I said, Congressman, that we were dreaming great dreams in this plan and setting our sights high, and I think we should.

Where we are going to get the resources to do this, I guess nobody is really sure at this point.

You know, to me it is unacceptable in this, the richest Nation in the world, for Kentucky to have a county in which only 3 percent of its households have—I believe you said 3 percent have sanitary plumbing facilities. It is just, you know, unbelievable.

So I just think we have got to dedicate ourselves. And it won't all be the Federal Government; I think the State governments are going to have to invest, local governments, and the private sector. I hope Congress will renew its commitment to this sort of short-term intensive care model through the ARC and other government programs. We are not the only player in eastern Kentucky, as you know, to fix these problems. I think the private sector and the philanthropic sector are going to have their roles to play.

We have not costed out this plan. I don't know how you would put a cost on some of those objectives, but I guess we feel that the people of Appalachia deserve no less than those 5 goals and 21 objectives. We want a call to arms, and, again, it is not just going to be the Federal Government, but we are certainly going to need as much resources from the Federal Government to undertake this as is possible.

Mr. ROGERS. Well, you sure have put flesh to that saying—and I quote roughly here—"Make no small plans for they have no ability to stir men's souls." You certainly have written a bold plan, and you are stirring a lot of souls out there, I hope. I hope we are stirring a lot of souls in Congress, which is where we need to stir them, and some of us will be helping you to stir them.

DISTRESSED COUNTIES

Now, that leads me to my next point with you. There are 399 counties in the ARC area; 115 of those are distressed by that technical definition. West Virginia has 30; Kentucky has 38. Those are the two highest numbers.

Mr. WHITE. Yes.

Mr. ROGERS. In your plan, you are trying to target more of your monies toward those distressed counties. I think that is the best feature of the plan, frankly, and I would have even taken that further, but I know what you have to do to get there.

But I am pleased by your decision, Governor Caperton and Dr. White, and the others, and the other governors, to target more area development dollars toward those distressed counties.

We all recognize there are some counties in the Appalachian region now that have made a whale of a lot of progress because of ARC and other things over the years, and, frankly, they probably ought to graduate out of this system if we could find a way to do that. That would, of course, take legislation up here, and that is complicated. But at least we can try to focus what few dollars there are on the places that need it most, and there are some places that need a lot.

How have you done that? And give us a little bit of the background of that process.

Mr. WHITE. Well, I am very sympathetic to everything you just said. I have testified publicly before this committee and our authorizing committee last year—and our State cochairman last year, Governor Jones, did likewise—that we would certainly be willing to work with the Congress on some sort of system for graduating out counties that reach a certain level of attainment and therefore don't need the special ARC assistance.

Only Congress can change the boundaries. I think the Commission would be overstepping its statutory authority if we said this county gets zero money. That, in essence, would be taking them out of the program.

Now what we have done is to establish three tiers of counties in terms of the ARC percentage in a project. The 115 distressed counties can get 80 percent ARC money. The middle—so-called middle—counties can get the traditional 50 percent Federal match. Our 33 attainment counties, once designated, can only get 30 percent ARC money. So we have established already these three tiers.

The truth of the matter is, when you look at the 33 attainment—what we call attainment, or competitive—counties in the region, these are mostly Metro County, Greenville-Spartanburg, Knoxville, places like that. The governors don't actually put much of their money into these counties. There is a pretty high level of responsibility that goes on in an informal basis in terms of where they invest their money.

The authorizing committee over here last year came up with what I thought was an ingenious idea—once a county achieves certain benchmarks, it could no longer receive ARC funding but it would stay in the program for purposes of the state allocation, which is based on population and other things. This would keep the same amount of money going into that State but would target it more toward the areas of distress, which I thought it was an interesting idea.

We are at the Commission now grappling with this. There is obviously a tension between governors wanting to be able to say, themselves, where they want to invest their money and Commission level policy, which I think we need to establish, which would move farther in the direction you are talking about.

Mr. ROGERS. Well, I thank you for that, and I encourage you to try to find other means within the law to focus the few dollars we have remaining into the places that desperately need it. But you are going in the right direction.

HIGHWAY PROGRAM

The highway program is about 75 percent complete now. ARC came into existence 30 years ago, and we still have 25 percent of the ARC Highway System yet to be built. I don't know what percentage of the Interstate Highway System is complete, but I know it is a lot more than 75 percent.

Again, Appalachia has been neglected. We were neglected at first by the Interstate Highway System itself. Now we are being neglected by the highway program of the ARC, as Congress has provided only enough funding to complete 75 percent of the 30-year-old plan's highway systems. We all know why. The remaining 25% is the most expensive portion yet to be built. But they are still as vital as they were considered 30 years ago, perhaps more so, because you have an interstate system to try to feed into.

We will never bring progress to these distressed areas until we get transportation in and out of there. Governor, is that right or wrong?

Governor CAPERTON. Absolutely correct.

Mr. ROGERS. There is nothing else that can build an area like transportation in and out. It is almost like the Nile River and the Desert of Egypt. It is green along the banks. It brings growth to a region.

So while I compliment you, Dr. White, on trying to redirect ARC's mission toward economic development efforts in a general sense and perhaps taking a few dollars out of the highway program to do that, Tom Bevill and I especially are not going to let you get by with that.

Mr. WHITE. I have noticed.

Mr. ROGERS. We are going to try everything we know how to try to get you the dollars you need for what you are trying to do, plus a few more dollars to get those highways built, because they are so vitally important.

Do you have a problem with that?

Mr. WHITE. No, sir. I know this is somewhat speculative; but if our appropriations level was $300 million, let's say, I would not be coming to the committee asking for a 50–50 balance, because the highways are very expensive. I mean, the average mile of a highway in the mountains now is something like $15 million a mile in some of our terrain. It is very expensive.

I just think there is a kind of de minimis requirement on the area development side, and I don't know exactly what that number is. It is probably somewhere between $70 million and $100 million to really have a viable area development program, and then whatever else there was for highways would be terrific, and we want to see them built as quickly as possible.

Mr. ROGERS. Well, your strategic plan says that you want to have to 90 percent of the highway system open to traffic in the next decade.

I guess what we are saying is, at the rate of $82 million a year, which is the amount you requested for highway construction, you are not going to get there. There is no way you can get there. So we are going to have to try to find more monies for the highway program within the ARC and/or try to leverage other monies.

That brings to mind the 1991 Highway Act in the Congress that authorized, quote, "such sums as may be appropriated," end quote, for the Appalachian Highway Development System to be funded out of the general fund and also opened it up to matching funds out of the Highway Trust Fund.

Mr. WHITE. Right. That was a big step.

Mr. ROGERS. A big step. The problem is, we can't get them to put any money into it. So what can we do to try to get monies out of the trust fund dollars and/or the general fund dollars, realizing that you will never get enough money out of this subcommittee for the ARC program to finish the 30-year-old ARC highway plan?

Mr. HUNTER. Let me respond to that, if you would, Congressman.

Dr. White mentioned the fact that we are doing for the highway program exactly what we did for the ARC as a whole with our strategic plan that we just finished, except we were going to do this a lot faster.

In the next couple of months, we want to take an intensive look at the highway program, its costs, look at the priorities, the remaining sections that would have the highway of the payoff. We want to do that in conjunction with our States, and we want to do that with the Federal Highway Administration. We have had a couple of meetings with them already. They showed some interest in working with us on priorities for our system.

So we totally agree with you that we need more funds to be applied to building the system and the quicker the better, because the price is not getting any cheaper.

Mr. ROGERS. I commend you on that. I think that is a brilliant step to try to distill—well, to try to put a distressed label on the highway system. There are some highways more important than others, as you are suggesting, I think.

Mr. HUNTER. That is right. Yes, sir.

Mr. ROGERS. And with limited dollars, we have to put our money where it matters the most. Is that right?

Mr. HUNTER. That is right. We got a very good reception from them.

Mr. ROGERS. Did they give you any money?

Mr. HUNTER. Not yet.

Mr. ROGERS. You didn't get a very good reception then, did you?

Mr. HUNTER. We are hopeful.

Mr. ROGERS. I commend you on that. I think that is an excellent way to go.

Mr. Chairman, I have exceeded my time, and I can go further, but I will wait for a second round.

Mr. MYERS. Mr. Frelinghuysen.

MR. FRELINGHUYSEN'S OPENING REMARKS

Mr. FRELINGHUYSEN. Thank you, Mr. Chairman.

There is such an air of good feeling in here, I would hate to intrude on it.

Let me say, Governor, it is nice to listen to you, and let me say that all members of the committee support your work and recognize what you have done historically for the region.

I would like to certainly pay special tribute to Mr. Bevill, who has been educating me during the last 15 months, and most particularly Hal Rogers, who has made a case to me as a new member of the committee for the economic reasons for doing what we are doing.

I think that I ought to say that while he is supportive, and we are all supportive, we obviously have an overall objective here of trying to balance the Federal budget.

Unlike the TVA, which is coming in after you, you at least have asked for a budget which is the same as last year. Of course, Mr. Rogers made sure that you got sufficient funds last year, and, to his credit, he is tenacious on your behalf as, of course, is Mr. Bevill.

But I do like the notion that Mr. Rogers suggested: that there may be some areas where people could literally, to use his own words, graduate; that there could be perhaps a higher degree of self-sufficiency; that we could, in fact, wean some communities off a certain amount of dependency.

And I do like the notion, because I raised it last year, or maybe I piggybacked on what Mr. Rogers taught me last year. There is no reason why individual States can't be as aggressive as the rest of the country in terms of getting money for transportation from other sources. I know you want to supplement what you are getting, but, in reality, you have every right to be out there slugging it out with other States who have mass transportation needs.

Mr. ROGERS. Will the gentleman yield?

Mr. FRELINGHUYSEN. I would be glad to yield.

Mr. ROGERS. We all, I think—practically all of us share the mission of balancing the budget. That has to be done.

Let me quickly point out that in this region of the country, this Appalachian Region, the Federal Government spends zillions of dollars on poverty programs, welfare programs, medical aid programs, everything else. It is the part of the country that is most in need and takes most Federal dollars to sustain.

If we could make that region halfway self-sustaining, just think of the zillions of Federal dollars that would be saved toward balancing that budget. That is the point I wanted to make.

Mr. FRELINGHUYSEN. It is a good point, and you continue to reinforce it with me. I understand that argument, and I at times have been sympathetic to it, although I don't always vote with you, I certainly know the rationale behind that argument.

Thank you, Mr. Chairman. Thank you.

Mr. MYERS. Thank you. Mr. Knollenberg.

MR. KNOLLENBERG'S OPENING REMARKS

Mr. KNOLLENBERG. Mr. Chairman, thank you.

I apologize for my absence in the beginning of this session. As you probably know, we only had three, committee hearings at the same time. One of the things I haven't learned how to do is how to be at three meetings at the same time, so I apologize for that.

Let me just say a couple of things. First of all, I do appreciate the move to stay, I think, within the constraints of last year, and I think you have done a good job about keeping the budget within those lines. And I particularly appreciate the guidance of the gentleman to my right, Mr. Rogers, who, when I came on this committee, was the individual who gave me a better insight into how these monies were spent and where we have to go to restructure, and I think you have done that with your strategies, your ARC strategies.

I can tell you that when I first came to this committee, I was of the opinion that we should get rid of ARC, and my belief was fostered, of course, by a variety of external reports; But when you get into the specifics, you get a better, sharper realization of just how the monies are spent. And I would like to see the program succeed, obviously.

I do have a couple of questions. I think that if we concentrate on the pockets of quality—and I believe that is what you are trying to do, that is the strategy—then we can become far more successful.

Obviously, I think a lot of us would like to see this program sunset. I think Mr. Rogers and the chairman and others would like to see it sunset. We realize we have to look at all of those areas; whether that is Washington or Wayne, West Virginia, or Wheelwright, Kentucky.

POTENTIAL DUPLICATION AND OVERLAPPING PROGRAMS

So my first question has to do with, some of the potential redundancy. I don't know that there is. But we have got ARC, TVA, the PMAs, the Department of Transportation, and I was surprised to find that the Department of Education is also wrapped up in this. And I am just wondering if there is some redundancy here, particularly on the job training programs. I understand the Department of Education is involved in that.

Can you tell me if there is any way, in your judgment, that we can avoid some redundancy in terms of some of these overlapping programs? It seems to me we find ourselves reinventing something that is already there in many cases.

And, Governor, if you wouldn't mind starting.

Mr. WHITE. I would be glad to, you know, with your permission, and if Governor Caperton would like to add anything to my answer to get a State insight.

The ARC was actually set up originally to be supplemental, the glue money in projects, and we were actually explicitly set up to work with other basic agencies.

The original theory was that some communities were so poor that they couldn't come up with a 50 percent match on the Federal grant-in-aid program—on a particular grant at HUD or at Soil and Conservation Service, or Farmer's Home Administration. Of course, I know all these names have changed.

So we were there to be able to bring another 20 percent or 30 percent to expand the Federal match, and the way we work is that we have interagency agreements with these other Departments, so that a lot of our programs are actually administered by other agencies. If they have money in the grant, there is no compensation; if they don't have money in the grant, we compensate them to administer the grant for us, because we have never wanted to build up a big staff of engineers and all that.

Our whole staff is only 50 people. That is why our administrative overhead is only 3 percent of our appropriated budget. So we try not to be duplicative. We are there to leverage other resources through a wide range of programs to get our communities involved.

Another issue that I think you find at the State level is that sometime there is such—perhaps not in West Virginia, but in some of our States there is such an urban predominance that some of our rural areas kind of get neglected, and our programs can actually direct resources to these rural areas in some of our States. So we certainly don't think we are duplicative.

As a part of our whole planning process and bottom-up reevaluation, we are now in the process of reexamining all of our inter-agency agreements and our relationships with other agencies to be sure we are not duplicative.

Mr. KNOLLENBERG. You know, in some of the other hearings we have had, we have found that, historically at least—and they all confess that it was bad way back when but it is better now—there is actually turf; that is, this Department had its turf, and there were competing philosophies. It was described to me by one of the testifiers as almost war among Departments. Well, that doesn't get us anywhere.

Would you say that that is not characteristic of the various agencies that are involved with the ARC?

Mr. WHITE. Very little. The governor might want to comment, and Tom works with this on a day-to-day basis. He actually works with our agencies.

But I have been here 2 years, Congressman, and I haven't—I haven't run across that from our point of view.

Mr. KNOLLENBERG. Governor.

Governor CAPERTON. Thank you, sir.

I don't think that that is—in our case, basically what we try to do is to use the Appalachian dollars to leverage other dollars.

I have never seen a case where we have had a problem with a duplicative problem or a problem of competing agencies trying to do the same thing. When you see different agencies sometimes involved, it is—in our case—I can speak specifically of our State—there is always a way to leverage those dollars to maximize them.

Mr. KNOLLENBERG. Are you comfortable with the fact that the Department of Education has the charge for the job training end of it?

Governor CAPERTON. We haven't—I have never—I cannot think of an example where we have run into any problems with the Department of Education.

Mr. KNOLLENBERG. Do they do a great deal with a small amount?

Governor CAPERTON. Occasionally we will do—I know we have done some—we did some work.

One of our grants last year related to a very specific vocational program where we needed additional dollars in order to get it done in a high unemployment area. So there were education dollars that went in there along with ARC dollars. But it was certainly not one of which we were competing for that; it was one in which we were leveraging.

Mr. KNOLLENBERG. Mr. Chairman, I don't know how much time I have got here.

Mr. MYERS. You have got about 3 more minutes.

Mr. KNOLLENBERG. Good.

Let me just ask you then, if I can do this in 3 minutes——

Mr. MYERS. First time around.

EMPLOYMENT LEVELS

Mr. KNOLLENBERG [continuing]. What is the current FTE level—and I will respect anybody's answer here—at ARC?

Mr. WHITE. You mean on our staff?

Mr. KNOLLENBERG. Well, give me the breakdown, if you will.

Mr. WHITE. Okay.

Mr. KNOLLENBERG. If you can break it down.

Mr. WHITE. I may have to ask Tom to help me on this.

There are 11 people on the Federal staff. That is the Federal cochairman, and seven others, and three in the IG's office. So that is purely Federal money. And Tom heads the Commission staff, which is 50 people, and that is paid for half with Federal money, which is part of our salaries and expense account here, and the 13 States underwrite half the cost of his operation, too, so that Tom and his staff, day in and day out, are half working for the Federal Government and half working for the governors. It is part of the ingenious nature of our model.

So it is kind of hard to answer what our FTE is. There are 11 in the Federal office and then 50 in the Commission staff.

And then our FTE and other agencies is how much?

Mr. HUNTER. Well, we transferred about a million six to the Federal Highway Administration to administer highway program, staff.

Mr. WHITE. What is that FTE there, Tom? Do you remember?

Mr. HUNTER. I think there are about 14 people involved with that.

Mr. KNOLLENBERG. We are talking about small numbers here.

Mr. WHITE. Very small.

Mr. KNOLLENBERG. Do you use contract employees?

Mr. HUNTER. Occasionally. It is not a large item.

Mr. KNOLLENBERG. That is a small number, too.

Mr. HUNTER. Very small.

Mr. KNOLLENBERG. You said the Federal-State split was what, again?

Mr. HUNTER. Fifty-fifty expenditure on the administrative staff.

ADMINISTRATIVE EXPENSES

Mr. KNOLLENBERG. How much of the ARC budget is spent on administration?

Mr. HUNTER. Well, we have——

Mr. KNOLLENBERG. I'm asking about money that is not sent to participating States. Does that question make any sense?

Mr. HUNTER. Yes, it does.

The administrative staff is $4.8 million, $2.4 million of which comes from the State and $2.4 million of which comes from the administration.

Mr. KNOLLENBERG. What about money for consultants?

Mr. HUNTER. Any consultants that would be used would be part of a program operation, so very minor.

Mr. KNOLLENBERG. It would be minimal, then.

What percentage of the ARC budget is spent right here in Washington, D.C.?

Mr. WHITE. Very small.

Mr. HUNTER. About 3 percent.

Mr. WHITE. Very small, about 3 percent. Most of the money goes back out to the States.

Mr. ROGERS. If the gentleman would yield?

Mr. KNOLLENBERG. I would be glad to.

Mr. ROGERS. Frankly, I have talked to the gentleman personally about this. The way the ARC is structured is a model for what the new Congress would like to see other programs to be, in my judgment. It is devolving responsibility to the States while keeping some sense of the national goal in mind, and they have been doing this for 30 years, and I just think it is the model that a lot of other agencies ought to adopt, to be frank with you, and they do it with a very lean, mean staff—very, very efficient.

Mr. WHITE. We have 18 FTEs at the Federal Highway Administration and 11 FTEs in other Federal agencies that we reimburse for administering our programs.

SUNSET OF ARC

Mr. KNOLLENBERG. Here is a final question. This may be tough to answer, but I think it is worth exploring. When can we expect maybe a final sunset on ARC? Do you have any thoughts about that?

Mr. WHITE. Well, that is the $64,000 question.

Mr. KNOLLENBERG. Add some more zeroes on it maybe.

Mr. WHITE. It——

Mr. KNOLLENBERG. Can you see some light out there somewhere?

Mr. WHITE. It is hard to say. I do see light. We have 33 of our counties now that I think are very close to being self-sufficient, that I really don't think need our support anymore. I am pushing to try to have some kind of graduation system out of the program that, once they achieve some criteria, these counties wouldn't get ARC money unless it could be demonstrated that in some kind of "growth center concept" they would be tying in to distressed areas. I think you could make a case for that.

A lot of the people live in those 33 counties because they are Metro counties, so even though it is only 33 of 399 counties, it is probably a third of the people. So I think we are making progress.

Hopefully, we could have a plan that, you know, by the time the remaining 25 percent of the highway system were completed at a cost of—what?—4 point something billion?

Mr. HUNTER. It is about 4-and-a-half billion.

Mr. WHITE. Four-and-a-half billion to finish the highways, because we are building the pieces now that are very expensive through the mountains.

You know, we could be at the point, if we continue to work on the area development side, that when the development highways are built, we could say, you know, our job is done. It is hard to put a time frame on that.

Mr. KNOLLENBERG. I understand that. I appreciate also the work of Mr. Bevill, who has been one that always acts in a reasonable fashion and has been a counselor and a person who has educated me on some of the facts of life regarding ARC; and the chairman, Mr. Myers, as well. So in that regard, I just want to salute them and thank you for your testimony, and that will be the conclusion of my comments.

Mr. MYERS. Thank you, Joe.

Mr. Bevill.

MR. BEVILL'S CLOSING REMARKS

Mr. BEVILL. Well, Mr. Chairman, I have got several questions here that I am just going to put in the record, so they can answer them on the record.

I would just like, again, to commend you three for what you are doing. As to the questions regarding overhead, I think that this is one of the lowest percentages of overhead, since you really operate through other existing agencies.

Mr. WHITE. That is right.

Mr. BEVILL. And I do think, as Chairman Rogers points out, that this program is really one that would move toward balancing the budget. It could be used in other programs, mainly because of the low overhead. For example, when the Farmers Home Administration put money in a project with the Appalachian Regional Commission, then the Farmers Home Administration manages it, because they are already set up to do that, and it doesn't increase any expense at all of the Federal Government.

So this system has worked, and I think my colleagues here are aware of that. It is a system that I think is going to be expanded and be used in the future in these other programs because of the low overhead.

I think the Corps of Engineers, who are on the payroll full time and do a great job—and they do the best I know of for the dollars—I think they run about 2 percent overhead.

The Washington Monument sat out there about a third of the way up—you notice the color changes there—sat there for years, and somebody suggested, "why not get the Corps to finish it?" They are already on the payroll, and so they got a colonel to finish the Washington Monument. The Government didn't have any money, but they had a Corps of Engineers, so all they had to do was get a few rocks.

Mr. ROGERS. Mr. Chairman, would you yield?

Mr. BEVILL. Yes.

Mr. ROGERS. Were you chairman during that period of time?

Mr. BEVILL. Yes. [Laughter.]

But this is an example, I think, of this program.

And the governors, I really think—and I am not saying that just because my friend, the governor of West Virginia, is here—but I think the governors have done a tremendous job. I know I was butchered on NBC about this program. They mentioned some gym that was built for a school, which is not a terrible thing to do, you know. But as far as this program is concerned, we don't generally get into that kind of thing, and, of course, there are thousands of applications.

And I made a statement. I said—of course, it didn't make it to the screen—I said, "You know, I think our governors have done a great job. They are the ones that check these applications, and I don't know of an instance in the whole history of this program that any governor has ever abused this program."

And then the cochairman—and Tom, the director, are checking these applications. I wouldn't know what an application looked like if you sent one over here. But, you see, I told all that, and I said, "You know, I have no way of knowing what's done out there on applications. I don't know anything about that." And of course all he recorded was, "I don't know anything about it, see." And so——

Mr. WHITE. I suffered the same fate in that interview, Congressman.

Mr. BEVILL. Yes. Well, you came out a lot better than I did, I will tell you.

I would like to interview him sometime, and I would like to get through doctoring that tape with him, too.

This program stands on its own. It has no apologies. It is a good program, and, if anything, we ought to be looking at these other agencies and see if we could adopt this system. I think it has proven itself and the results are there.

Thank you.

MR. ROGERS' CLOSING REMARKS

Mr. MYERS. Mr. Rogers.

Mr. ROGERS. Mr. Chairman, I think the questions I have left I can submit for the record.

Let me just say quickly though, in closing, for my part here, I think the ARC has, under Dr. White's leadership and Governor Caperton, and others, adjusted its sails; you have trimmed your sails adequately, I think. In keeping with the national mood of efficiency and cutting costs of government, you have done your part. You took a 40 percent hit last year. That is more than most agencies took, obviously.

So you have done the right thing, and you have trimmed your sails to adjust to the national mood that we are representing in the Congress, and I think you have changed the program enough so that you have given us more ammunition to argue the case to the rest of the Congress that these are well spent dollars, although few.

So I commend you on that and close with this: ARC is not unique, but it is pretty close to it, I think, in the panoply of Government programs. It is efficient; it has a mission; it has enlisted grass-roots people, number one. It has married up the government agencies—local, State and Federal—into a singleness of purpose.

And then over the years I found we have been able to recruit, as we have now, very mission-oriented, dedicated staff. It is not a bureaucracy, and God help us if it ever turns into that, but it is motivated by a mission from top to bottom. And you are doing a good job, and I salute you on that.

Mr. WHITE. Thank you very much.

Mr. ROGERS. Thank you.

Mr. MYERS. Joe.

Mr. KNOLLENBERG. No, no questions.

Mr. MYERS. Well, thank you, gentlemen, once again.

Governor CAPERTON. Thank you, Mr. Chairman.

Mr. MYERS. Governor, good luck to you in your pursuit. I am not looking for any job, but for those of you who are and Mr. Bevill and the rest of you, all you young guys.

Mr. BEVILL. Governor, if we don't find a job, we might just get us some fishing canes and just go fishing.

Governor CAPERTON. I think that is a good idea.

Thank you all very much.

Mr. MYERS. Sorry about your condition today, but thank you for coming in.

Mr. WHITE. Well, thank you very much.

Mr. MYERS. I hope you get well real quick.

Mr. WHITE. Thank you for indulging me.

Mr. MYERS. Usually we have something better to drink, but that is all we could find this morning. I was hoping to give you a little tonic for that.

Dr. WHITE. Thank you, Mr. Chairman.

Mr. MYERS. And, Tom, good to see you again.

Mr. WHITE. Thank you.

Mr. HUNTER. Thank you very much.

Mr. MYERS. As soon as possible then, the Tennessee Valley Authority will move in. All of us have some questions we will provide for the record, gentlemen.

[The questions and answers and ARC budget justifications follow:]

GENERAL

Mr. Myers. ARC has stated that its $170 million budget request, "represents the minimum level that will allow the Commission to operate a viable regional economic development program in the 13 Appalachian States." Does this mean that a program costing the Federal government less than $170 million is not worth pursuing? If the request represents the minimum level to operate a viable program, then shouldn't we terminate federal contributions before considering a reduction in the budget request?

Dr. White. ARC feels that funding below some minimum level makes it extremely difficult to make significant progress towards completing the highway system and to keep the Governors actively involved in the area development program. At low funding levels, the dollars per State become so small that maintaining an effective regional partnership becomes a major challenge. We remind the Committee that the ARC sustained an almost 40% cut in its budget for 1996 – a $22 million reduction in area development alone. ARC does not know with certainty what the minimum practicable funding level is, and we do not recommend terminating the program if funding of less than $170 million is available. However, we are very concerned about funding below the President's budget request.

STRATEGIC PLAN

Mr. Myers. The ARC strategic plan, *Setting a Regional Agenda*, articulates a number of objectives for the accomplishment of regional development goals. The preponderance of these objectives call for ARC communities to equal or exceed the national average on multiple measures within the next decade. Is it fair to assume that the mission of the agency will be largely accomplished if these objectives are achieved within the next ten years?

Dr. White. Yes. ARC was never intended to be a permanent agency but was established to address severe economic distress in a region which, because of its mountainous terrain, had been bypassed by the nation's highways and resulting economic growth and development. The goals in the strategic plan represent the Commission's views of what Congress intended when it passed the Appalachian Regional Development Act, and of where the Appalachian Region should be when ARC's mission is accomplished.

Mr. Myers. The strategic plan emphasizes the importance of headquarters initiatives in realizing Commission goals and objectives. Please outline such initiatives to be supported under the fiscal year 1997 budget request.

Dr. White. Headquarters initiatives include various administrative reforms, strengthened relationships with other Federal agencies, increased collaborations with state and local economic development agencies, more research and planning for the Region, increased technical assistance to the States and grantees, improved project approval process, and more emphasis on project monitoring and evaluation. These activities are ongoing, and will be continued in FY 1997. ARC's staff reorganization supports these expanded headquarters activities. We have nearly completed installation of our own accounting system (replacing a longstanding agreement with the U.S. Commerce Department), which will reduce long-term costs and improve internal control. We are in the process of updating our agreements with other Federal agencies. ARC's administrative cost request for 1997 is the same as for 1996.

Mr. Myers. Please estimate the costs of the 18 month strategic assessment and planning effort that resulted in the publication of ARC's strategic plan.

Dr. White. Costs of the eighteen-month strategic planning process were approximately $540,000. Rather than hire a consultant to manage this effort, management and the bulk of the work were done by ARC staff. Of this $540,000, $217,000 was used for contracted research; approximately $156,000 was required for field hearings and related meetings, the satellite town meeting, and numerous consultations with expert panels on key subjects; $109,000 was used for planning support, and, about $58,000 was required for production of materials and publications.

Mr. Myers. Please provide budgetary details for the new Customer Relations and External Affairs Division. Is this division currently operating? If so, how much is budgeted for the division in fiscal year 1996 and what is the source of these funds?

Dr. White. The Customer Relations and External Affairs Division is the result of reorganization and consolidation. The division was formerly the Communications Unit of the Human Resources Division. The staffing level has not changed, but the role of the division has been modified to include dissemination of information on model/innovative projects to the States, surveying ARC customers, monitoring activities under the goals and objectives of ARC's strategic plan, and support for meetings and conferences. Previous and ongoing activities for the Division are: production of the quarterly magazine on regional development, *Appalachia*, production of the Commission's Annual Report, writing and editing Commission reports, and preparing speeches, testimony, documents and materials for other public dissemination. The division has a staff of six full-time personnel with estimated salaries and benefits of $482,000. Estimated production costs for publications are $115,000 and travel costs are $11,000 in FY 1996. Funds for this division, as for all Commission staff, come from the Commission's Trust Fund, which is funded with equal contributions by the Federal government and the Appalachian States.

INTERAGENCY AGREEMENTS

Mr. Myers. Please summarize the findings of the office of the Federal Co-Chairman's review of interagency agreements with other Federal entities. Have interagency agreements been revised, eliminated or replaced as a result of this review? Please describe for the record the principal interagency relationships maintained by the ARC.

Dr. White. The review of interagency agreements with other Federal entities is in progress. This analysis should be completed by the end of June. Appropriate negotiations with Federal agencies will take place shortly thereafter. We hope that any modifications of agreements would be effective in FY 1997. ARC maintains agreements with Federal agencies at the Department level, within the departments at the agency or program level, and with independent agencies. ARC currently has agreements with the Departments of Agriculture (USDA), Commerce (DOC), Education (DOEd), Energy (DOE), Health and Human Services (HHS), Housing and Urban Development (HUD), Interior (DOI) and Transportation (DOT). Agency agreements are maintained with the Economic Development Administration (EDA), Rural Utilities Service (RUS), Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), National Aeronautics and Space Administration (NASA), Soil Conservation Service (SCS), the Tennessee Valley Authority (TVA), and the Army Corps of Engineers (COE).

ARC currently pays administrative expenses for projects administered by other agencies only when these agencies have no appropriated funds in the project. Funding arrangements range from no charges (HUD, DOE, NASA, SCS, EDA, EPA, DOI, COE), to flat fees (TVA), to rates based on project amounts (USDA), to payments for full-time-equivalent personnel and related costs (DOEd, HHS, FHWA).

BENCHMARKS AND PERFORMANCE MEASURES

Mr. Myers. Please elaborate on ARC's plans to develop benchmarks and performance measures for highway and area development programs. Will ARC contract out for benchmarking studies? What are the costs and schedule associated with this effort?

Dr. White. The Commission is committed to benchmarking its progress in achieving the goals and objectives of the newly-adopted strategic plan, and is currently studying the issue of benchmarks and performance measures development. There may be some contracting out for items that cannot be done in-house, depending on the outcome of these studies. The Federal and State partners will be fully involved in the development of benchmarks and performance measures. These measures will also be used to develop the performance plan as required by the Government Performance Results Act (GPRA). Major efforts should be completed by December 1996.

AREA DEVELOPMENT

Mr. Myers. The conference committee on H.R. 1905, the Energy and Water Development Appropriations Act, 1996, directed the Commission to, "establish new area development criteria which place greater emphasis on assistance to the more severely distressed counties." Please describe the Commission's activities in response to this directive.

Dr. White. The Commission voted to increase, from 20 percent to 30 percent, the amount of area development funds that are dedicated to our 115 distressed counties. Accompanying this decision, Commission members expressed the need to define the ARC development strategy that would address the development needs of distressed areas as well as ensure the best return on the public investment in those areas.

The Commission adopted a motion that "the Policy Development Committee design a distressed counties strategy and planning approach that would address self-sustaining development; reexamine the ARC distressed counties formula; and look at pockets of distress. The Policy Development Committee is to report back to the Commission in the late spring of 1996." Upon determination of the distressed counties program, the Commission will revisit the set-aside and allocation of distressed counties funds. The Commission has set up an informal working group to make recommendations to the Policy Development Committee.

Mr. Myers. What types of refinements to the distressed counties program would you anticipate or propose for fiscal year 1997?

Dr. White. ARC currently has a working group studying distressed counties policies to determine how to best target resources to those counties within the context of the recently adopted strategic plan. The working group will make recommendations to the Commission's Policy Development Committee this Spring. The recommendations will include how distressed communities should be designated (e.g., county or sub-county level), what variables should be used to measure distress, how much should be allocated and what allocation approach should be used, and what investments yield the greatest return on investments in distressed communities.

The working group is looking closely at leadership development and strategic planning as tools that will build the collaborative skills that local residents need to create options for their futures. Communities also need to find ways to look for cooperative approaches with surrounding jurisdictions while they are building their internal capacity. Programs for business and entrepreneurial development, use of telecommunications, and the efficient delivery of government services, which are critical for the success of rural communities, can benefit from multi-county approaches and strategies.

For basic infrastructure (e.g., water and sewer) in distressed counties, much progress has been made, but much of the remaining work is very difficult due to remoteness of the customers, rough terrain, and lack of local government fiscal capacity to undertake public works improvements and expansions. The working group is studying the use of new technologies, innovative financing, and self-help approaches.

We will keep the Committee fully informed of our progress on distressed counties policy.

Mr. Myers. Of the 399 ARC counties, how many are categorized as distressed and how many are categorized as competitive? If available, please provide this data for the past five years. If ARC reform legislation, as reported by the House Committee on Transportation, were enacted into law, would all counties categorized as competitive become ineligible for area development assistance funds? What is your understanding of how pending authorizing legislation would affect the area development program?

Dr. White. One hundred fifteen (115) Appalachian counties are designated by the Commission as distressed. The Appalachian States designate competitive counties in their state plan. Thirty-three counties are eligible for designation; ten are designated. Counties were first designated by the Commission as distressed in 1983. Counties were reassessed in 1992 after the Census data was released and 117 were designated. In 1994, 115 counties were designated, and that designation continues today.

Under the ARC reform legislation, as reported by the House Committee on Transportation, the Commission would be required to "designate as 'economically competitive counties' those counties in the region which have attained substantial economic parity with the rest of the Nation." Such designations would be made by the Commission "in accordance with such criteria as the Commission may establish." This legislation would prohibit funding for projects located in economically competitive counties except in certain limited circumstances. The exceptions would be Appalachian development highway projects, local development district administrative grants and discretionary grants "to implement significant regional initiatives, to take advantage of special development opportunities or to respond to emergency economic distress." (Discretionary grants, whether in competitive counties or elsewhere in the region, would be limited to 10 percent of the Commission's area development appropriation.)

During FY 1995, 18 projects located in those counties which meet ARC's suggested competitive county criteria were funded in the amount of $3.1 million, which represents about 6% of the Commission's Area Development funds for FY 1995. Nine of these projects were located in South Carolina, four were located in North Carolina, three in Georgia and one each in New York and Pennsylvania.

Mr. Myers. Why should economically competitive counties -- which by definition have employment and poverty rates less than or equal to the national average -- receive any ARC development funding at all? Why do you suppose the Commission does not disapprove plans for projects in economically competitive counties?

Dr. White. Some State partners see projects in economically competitive counties as critical to development of neighboring distressed counties. Locating a major job center in a distressed community is often economically inefficient because of poor access, lack of services and limited labor force availability. However, residents of distressed communities will commute to jobs in competitive counties. Thus, poorer communities often benefit from development in competitive counties. This, in fact, is the traditional "growth center" model of regional economic growth.

The current Federal Co-Chairman prefers a more entrepreneurial model of economic development. While understanding the logic of a growth center model, he shares the Committee's belief that it is difficult to justify Federal investments in competitive counties during times of fiscal austerity. He has repeatedly stated his support for a mandatory graduation system and continues to work with the States to achieve a consensus on this issue. In fact, the Commission has established a working group on attainment or competitive counties, akin to the distressed counties working group referenced above. The Committee will be kept informed of progress on these deliberations.

Additionally, county-level data, although representing governmental units, often masks economic data for the county's subregions. Many competitive counties have "pockets of distress" with economic indicators similar to those of distressed counties. The Commission's distressed counties study will also make recommendations in this area.

The Commission does require a higher match for projects in designated competitive counties – a limit of 30% ARC funding. Increasing the match is as far as the Commission can go towards limiting funding for counties without redefining its boundaries, which would require legislation.

Mr. Myers. Why have only 9 of the 33 ARC counties qualifying for the "economically competitive" designation been so designated?

Dr. White: Currently, 10 counties have been designated as economically competitive. Commission policy leaves designation to the States, and the response has been mixed. In advisory memoranda, the Commission has suggested using factors such as: (1) poverty at or below the national levels; (2) three-year average unemployment at or below national levels; and (3) per capita market income no less than 80 percent of the U.S. level.

In setting a discretionary policy, the Commission recognized that success is sometimes fragile and short-lived in rural counties, and that the stability and long range prospects of such places are best assessed by the States, rather than in Washington. However, given the uneven response of the States to this discretion, the Federal Co-Chairman will continue to push the Commission for some form of mandatory designation.

Mr. Myers. The Subcommittee understands that the Commission's Export Trade Advisory Council (ETAC) is engaged in the development and execution of regional trade development strategies. Are these strategies unique to the Appalachian region or could they be deployed in other areas of the country as well? Feel free to comment more broadly on the role and activities of ETAC.

Dr. White. The ARC recognizes the importance of the global market and has established a regional goal related to the internationalization of the economy. The goal states that "small and medium size businesses throughout Appalachia will have the commitment and capacity to participate in the global market."

The Commission works through the 13 member States to develop strategies that promote international trade. In order to coordinate the activities of the 13 member States and to take collaborative action in policy, programs, and marketing, the Commission has supported the work of the Export Trade Advisory Council which includes representatives from all 13 States. The strategies developed by the States and the Export Council focus on increasing the trade readiness of companies, developing market entry approaches, and researching opportunities for export. A particularly promising project has been the interstate mapping of export trade clusters. This identifies potential opportunities for multi-state collaboration in developing export trade agreements.

Unique aspects of the export trade challenge in Appalachia include the historic isolation of small and medium sized enterprises, but the strategies developed by the Export Council and the 13 States could be transferred to other areas of the country.

Mr. Myers. Exactly what role will the ARC play in the participation by ARC member states in the 1996 Swedish Europartenariat? To what extent, if any, will ARC appropriated funds be committed to this international trade event?

Dr. White. ARC identified the Europartenariat Trade Events as a low cost approach for Appalachian companies to develop trade partnerships and export opportunities. The Europartenariat was started in 1987, and is a highly structured "matchmaker event," where 1,500 to 2,500 firms from over 50 countries hold pre-scheduled meetings with potential business partners matching their precise specifications. This "matchmaking" approach is a major improvement on the typical trade show since meetings have been prearranged between pre-screened firms in targeted product and service industries. Europartenariat events have been extremely successful with 40% of participants leaving with export trade agreements.

In an effort to capitalize on the successful track record of the Europartenariat, ARC will be participating in the Swedish Europartenariat Event in 1996. Europartenariat does not charge fees to businesses participating in the event and the participating Appalachian companies will pay their own travel expenses. ARC funding allocated to the event is limited and includes $35,000 for contracts with the States of Alabama and Georgia to coordinate the Europartenariat project for the entire Appalachian Region. This $35,000 provides for miscellaneous services such as business recruiting, organizing event logistics, coordination with other State trade offices, recording/compiling trade leads, and report preparation. The State of Georgia also proposes to use $28,000 of its regional initiative allocation for support of Georgia's participation in this event. Funded activities would include staff travel, miscellaneous technical assistance for video tele-conferences, booth set up costs, staff costs, and other miscellaneous expenses. An estimated total of 26 Appalachian companies will participate in the 1996 Swedish Europartenariat Trade event.

ARC staff may also attend the event depending on the number of regional businesses that commit to Europartenariat. In this case, ARC funds may be used for travel expenses. Specific ARC participation is not known at this time.

Mr. Myers. Please describe the relationship of the ARC to two economic development programs: the Community Development Financial Institutions Program and the Bank Enterprise Program? Are these programs operated by, or otherwise affiliated with, the ARC?

Dr. White. The Community Development Financial Institutions Fund and the Bank Enterprise Program are operated by the Department of the Treasury. The Commission has not been involved directly in these two new programs, but has provided information about the programs, including the recent Notice of Funding Availability (NOFA), to the Appalachian States and Local Development Districts.

Mr. Myers. Please provide a summary, including costs, of area development projects funded during the past fiscal year.

Dr. White. Projects funded in FY 1995 include 193 physical infrastructure projects with ARC costs of $48.6 million and total costs of $181.4 million; 136 human development projects with ARC costs of $14.6 million and total costs of $29.3 million; and, 80 business development projects with ARC costs of $14.7 million and total costs of $36.7 million.

Mr. Myers. Last year, ARC testified that tourism activities in fiscal year 1996 would focus on tourism development along Appalachian Corridors and Interstate Highways. Please describe with particularity the tourism activities in which ARC is currently engaged.

Dr. White. ARC continues to promote the development of the travel industry along the ARC highway corridors. An Example of an ARC project is the development of a plan for tourism along Corridor "L" in West Virginia that links tourist attractions, events, hotels, and restaurants. In order to implement the plan, ARC has provided assistance in tourist attraction and leadership development through local colleges. Leadership development is linked to tourism because tourist attractions often serve as rallying points for local community involvement.

Other tourism projects include promoting Appalachia to the international market, supporting the development of regional crafts, the development of regional events and the linking of Appalachian States in marketing efforts.

Mr. Myers. ARC funds 80% of the costs of "human development" projects. Describe the qualifications for human development projects, citing specific examples. Strong counties are limited to a 30% ARC contribution for area development projects, except for those designated as human development projects. Why? Why shouldn't strong counties assume a larger share of the costs for these types of projects as well?

Dr. White. The Human Resources Program complements ARC investments in community development and infrastructure by targeting funds to projects whose purpose is to ensure a healthy, well-educated and highly skilled workforce. Eligible projects are funded principally in the areas of (1) *workforce training* for specific skills that are in demand in the marketplace and which will increase employment opportunities for participants, and (2) *educational excellence*, which focuses on basic skills, dropout prevention, math and science programs with a business focus, technical assistance to support educational reform initiatives, and telecommunications programs to strengthen and improve educational opportunities in rural communities. *Health* and *youth leadership* are two additional program areas with strong relevance for ensuring region-wide economic development.

The ARC match for human resources projects is 80% to encourage these critical projects in all parts of the Region. Physical infrastructure development is necessary but not sufficient to develop economic self-sufficiency in Appalachia. Even with the higher ARC match, less than 20 percent of area development funds support human resource projects (see above summary of area development projects). The human resource match policy is currently under review at the Commission and we will keep the Committee apprised of any changes in this policy.

REGIONAL INITIATIVES

Mr. Myers. ARC targeted $5 million of its area development appropriation in fiscal year 1996 to regional initiatives in, "telecommunications, international trade, and local leadership and civic capacity." How was the $5 million distributed among these initiatives and how were the funds used to pursue each of the initiatives? How much money do you propose to set aside for these or other regional initiatives in fiscal year 1997?

Dr. White. Of the $5 million approved for regional initiatives in FY 1996, $4.6 million has been allocated to the States by formula, and $400,000 has been reserved for Commission-level activities to support the initiatives. Within their respective allocations, States have the discretion to allocate funds across the three initiatives, and are submitting projects in all three areas. Submissions for 1996 funding for regional initiatives have not all been received. Projects approved and pending to date (including 1995 and 1996 allocations) have included approximately $2.0 million for telecommunications, $2.7 million for internationalization of the economy, and $1.8 million for leadership and civic development. This total of $6.5 million includes $1.5 million which was allocated for 1996. The projects approved have ranged widely, based on State needs. In *telecommunications*, typical projects funded have included training, development of strategic plans, equipment acquisition, and technical assistance. Under the *internationalization of the economy* initiative, projects have included training, information services, the use of telecommunications technology in developing export trade, identifying export needs, and participation in an export trade mission. In *leadership and civic infrastructure*, typical projects have included leadership training, team building, management and planning skills, youth mentoring, on-line access to community development information, and communication skills.

The President's budget proposes $6 million for these three initiatives in FY 1997 plus additional funds for a new initiative in entrepreneurship. The actual allocation for all regional initiatives will be determined jointly by the Federal Co-Chairman and the States.

Mr. Myers. Please describe the mechanism for distributing funds for regional initiatives. Are regional initiative funds set aside from state allocations?

Dr. White. The Federal Co-Chairman and the member States approve a total amount for regional initiatives out of the area development allocation, and the amount is allocated separately from the States' regular allocations. The procedure for allocating the regional initiative funds is as follows: First, an amount is reserved for Commission level activities, as identified and approved by the States and the Federal Co-Chairman. In the current fiscal year, $400,000 was reserved for such activities, including workshops, special research, or technical assistance supporting the regional initiatives. Each State then receives a minimum of $100,000 for projects, and a share of the remainder of the funds that is distributed to each State according to the Commission's regular area development formula.

Mr. Myers. Please describe the new regional initiative proposed for fiscal year 1997: "Building Entrepreneurial Communities." How much money does ARC propose to commit to this initiative in the coming fiscal year?

Dr. White. The new initiative on "Building Entrepreneurial Communities" is currently in the development stage. Consensus is building around the need for a multifaceted strategy that would apply an array of development tools, including better access to capital, technical assistance, technology transfer, and simultaneously address longer-term systemic issues, including entrepreneurial education and the support networks for entrepreneurial development throughout the region. Funding for this initiative will be determined jointly by the Federal Co-Chairman and the States, and will come from within the overall area development allocation.

REVOLVING LOAN FUNDS

Mr. Myers. Please report on loan activity in fiscal years 1995 and 1996 associated with the revolving loan fund program. What is the current balance in the revolving fund available for new loans?

Dr. White. The Commission does not make direct loans. Since 1977, ARC funds have been requested by the States and approved for capitalizing State or local revolving loan funds (RLFs) for business development. Grantees are primarily local development districts who operate other business assistance programs as well. Currently, there are 29 grantee organizations in 10 of the Appalachian States. In FY 1995, grantee loan boards approved approximately 70 new loans in the Region, averaging about $52,000 each. During FY 1995, the Commission also awarded 14 recapitalization grants totaling $3.2 million. Reports on loans issued in FY 1996 are due at the Commission in May. In FY 1996, recapitalizations totaling $2.5 million are currently under review.

As of October 1995, grantee RLF programs had a total of 414 active loans in the Region. Since 1977, the Commission has made capitalization grants totaling $18.7 million, and these have generated $8.8 million in loan repayments. These proceeds finance operation of the loan fund and are made available for new loans The ARC RLF grants have leveraged an estimated $328.9 million in other funds for businesses, largely consisting of funds from banks. Only 81 loans totaling $2.1 million (less than 4.6%) have been written off as unrecoverable since the inception of the program. Just under $3.7 million is currently available for new loans across all grantees.

HIGHWAY DEVELOPMENT

Mr. Myers. Please list current unobligated balances for each uncompleted ARC corridor. What will be the total unobligated balance in the highway program at the end of fiscal year 1996? Fiscal year 1997?

Dr. White. The only corridor with a significant unobligated ARC balance is Corridor "H" in West Virginia. As of March 31, 1996, this balance is $59.3 million. ARC appropriated funds are normally not allocated to specific corridors unless earmarked by Congressional action. This is the case for remaining Corridor "H" funds. The other 12 States collectively have an unobligated ARC balance, as of March 31, 1996, of $0.8 million. None of these funds are pledged against particular corridors.

The Commission expects a minimal unobligated highway program balance at the end of FY 1996 if the work on Corridor "H" is allowed to proceed. If not, funds will be carried over another year. The President's FY 1997 Budget assumes that highway funds appropriated for 1997 will be obligated that year.

Mr. Myers. For each highway corridor, please list current uncosted obligations. What plans does ARC have to deobligate any uncosted balances?

Dr. White. ARC does not have any uncosted obligations by corridor. As each project is completed and final vouchers are paid by FHWA, any overages or underages from the original obligations are automatically deducted or credited to the ARC highway account at FHWA.

Mr. Myers. Please discuss any progress, or lack thereof, on Corridor H in West Virginia and Virginia. What are the end-of-year unobligated balances for Corridor H for each of the last five fiscal years? Have funds for this project been obligated during the past fiscal year? If so, please describe these commitments in the context of a project that is plagued by environmental concerns, legal questions and organized opposition.

Dr. White. Corridor "H" is a 149.3 mile cross-Appalachian route connecting between I-77 near Weston, West Virginia, on the west and I-81 near Strasburg, Virginia, on the east. It traverses a major area of northern West Virginia and interconnects the communities of Buckhannon, Elkins, Parsons and Moorefield, West Virginia. In general the Corridor follows US Routes 33 and 219 and SR 55 in West Virginia and SR 55 in Virginia. The 134.9 miles in West Virginia are all in the Region. The 14.4 mile section in Virginia is outside the Region. Progress by State is as follows: Virginia has only done location studies on its 14.4 mile section of the Corridor. It has programmed minor traffic improvements on this route in its current 6-year program.

West Virginia has now completed and opened to traffic all 31.0 miles of this Corridor from Weston to Elkins. In addition, a 6.6 mile section along US Route 33, east of Elkins, between Canfield and Bowden, and on the currently adopted alignment, was completed. However, due to a variety of environmental and developmental considerations, this alignment has been restudied and a new alignment going northeasterly out of Elkins along US Route 219 is being proposed. At Thomas, the alignment would continue generally along SR 93 to Scherr where it would turn easterly and connect with SR 55 near Moorefield. The State is in the process of preparing a Final Environmental Impact Statement (FEIS) for this route and is still waiting for final clearance from one agency. A 45-day extension has just been given to this agency, the Keeper of the National Register, to resolve differences relating to two battlefield sites along the route. The State plans to submit the FEIS to FHWA for a Record of Decision in late spring.

The unobligated ARC balance for Corridor "H" is related to the 1995 earmark, and is $59.3 million as of March 31, 1996. Before 1995, funds of $3.8 million were spent on Corridor "H" from the State's regular allocation, and there were no earmarks specifically for Corridor "H". (An earmark for either Corridors "G" or "H" in 1992 was applied to Corridor "G"). ARC expenditures are directly related to engineering, right-of-way, and construction costs on the just finished Buckhannon to Elkins portion of the Corridor. Most of the construction expenditures ($97.3 million) on this section have come from special demonstration funds contained in DOT appropriation acts starting in FY 1989.

No funds were obligated for Corridor "H" during the past fiscal year. Obligations in prior fiscal years were consistent with the completion of the corridor from Buckhannon to Elkins and in the conduct of a reevaluation of the proposed corridor east of Elkins. Until the FEIS is accepted and the Record of Decision made no further expenditures on this project will be made.

Although there is opposition to some parts of the corridor by some groups, West Virginia remains strongly committed to this project.

Mr. Myers. Does ARC still estimate that the remaining 25% of corridor construction will cost as much as the 75% already completed or under construction?

Dr. White. Yes. This is due to the fact that the remaining segments are some of the most costly due to terrain, and inflation has greatly increased highway construction costs over time.

Mr. Myers. What distinguishes the 256 miles (8.6%) of corridor mileage not designated as part of the National Highway System? Do they fail to meet federal design standards or otherwise fail to qualify for inclusion in the system? If not, are there plans to bring this mileage into the NHS?

Dr. White. Designation of roads to be included in the NHS was done by the states. In the instance of the undesignated portions of ADHS system, states opted to designate alternative routes to the ADHS routes for inclusion in the NHS system. This was primarily done to improve system continuity and connectivity, particularly at state borders. Inclusion/non-inclusion was based on these functionality issues rather than any lack of meeting standards. The states still have the option of adding additional mileage in their state to the NHS. We know of no specific plans to include the excluded ADHS mileage at this time.

Mr. Myers. What is the Commission's schedule for the highway cost-to-complete study? How much will this study cost?

Dr. White. ARC is currently undertaking a thorough review of its highway program, including prioritizing for completion the uncompleted segments of the ADHS and updating completion costs. The system has 848 miles in various stages of development. Most of this mileage is in short segments of 10-30 miles sandwiched between completed sections. It is estimated that between 150-200 cost sections (subdivisions of each corridor) require examination. This evaluation will be completed during 1996.

The current highway cost to complete estimate is based on 1992 costs. The Commission will be updating the cost to complete estimate during 1996 by applying indices to account for construction cost inflation since 1992.

The Commission proposes to start a new cost-to-complete study in the second quarter of FY 97 with costs determined as of December 31, 1996. The study will take 4-6 months to complete and the results will be available in summer 1997. Estimated state and Commission costs to conduct the study are $300,000.

Mr. Myers. Please estimate the Commission's pre-financing obligations to states at the end of fiscal year 1997. How does the Commission plan to reduce this mortgage against future resources?

Dr. White. It is estimated that the States will have $240 million in pre-financed projects (advanced construction) by the end of FY 97. Without a major policy change, the Commission has no specific plans to reduce this amount. Most States using pre-financing have opted to use all or a portion of their annual allocation to retire this obligation.

ARC policy with regards to pre-financed projects is consistent with FHWA guidelines on advanced construction. In approving projects for advanced construction, FHWA advises states that they proceed at their own risk and that the retirement with Federal funds of the money advanced by the state is subject to the availability of future Federal funds. ARC policy is no different.

LOCAL DEVELOPMENT DISTRICTS

Mr. Myers. Please describe the contributions made by local development districts (LDDs) in accomplishing the ARC's economic development mission. How, specifically, have LDDs helped to expand local capacity for economic progress? What is the Commission's long-range plan for the care and feeding of the LDDs?

Dr. White. The LDDs serve as the local partner in the federal-state-local program. The districts, with their governing boards, are responsible for identifying local community needs, prioritizing those needs, and assisting in the development and implementation of projects and programs (using ARC, other federal resources, state and private resources) to meet those needs. The heart of the ARC program is its "bottom-up" approach. The LDDs are the organizational structure, developed and supported by the ARC, to ensure that "local" effort. With the assistance of the LDDs as the local partner, ARC has successfully implemented a vocational/technical education system, health care facilities and hospitals, water and sewer facilities for industrial development as well as to distressed areas, and implementation of successful enterprise and business development programs.

The LDDs have been involved in a wide-range of area and regional planning -- at the county, multi-county, multi-district, and even multi-state level. They provide technical assistance to local communities and local governments in the development of projects and programs. Many instituted Geographic Information Systems that provided the mechanism for the collection and use of data in promoting economic development activities at the local level. Over the years, most of the districts have assumed additional responsibilities in connection with the transferring of federal programs to states and localities. In many instances, LDDs are maximizing the role of the private sector in the planning and development of programs and projects to develop the economy locally. Some districts have assumed a prominent role in the modernization of local industries and the implementation of successful enterprise development programs at the local level.

With the completion of ARC's strategic plan, the role of the LDDs will increase. The strategic plan envisions a key role for the LDDs in the entire service delivery and planning system.

To prepare the LDDs for their expanded roles, the Commission will continue to provide training to the LDDs in ARC's regional initiatives, and will provide training on implementing ARC's strategic plan and leadership training. The goal is to redefine the LDD's role in today's world, strengthen their organizational structure, and allow them to have a broader vision of ARC's requirements. Increased coordination with non-profit groups is also envisioned for the LDDs. The Federal contribution to the LDDs is planned to remain constant in FY 1997.

APPALACHIAN REGIONAL COMMISSION

Budget Estimates, Fiscal Year 1997

As Submitted by
the
Federal Co-Chairman

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March 1996

APPALACHIAN REGIONAL COMMISSION

I. SUMMARY OF APPROPRIATION AND BUDGET REQUEST

(thousands of dollars)

Request by Activity	1996 Enacted	1997 Request	Increase or Decrease
I. **Appalachian Regional Development Program:**			
A. Area Development	52,055	77,875	+25,820
B. LDD Support and Technical Assistance	5,300	5,300	-0-
Subtotal	57,355	83,175	+25,820
C. Highways	109,000	83,180	-25,820
Total	166,355	166,355	-0-
II. **Salaries and Expenses:**			
A. Federal Co-Chairman & Inspector General	1,245	1,245	-0-
B. Federal Share of Commission Expenses	2,400	2,400	-0-
Total	3,645	3,645	-0-
GRAND TOTAL	170,000	170,000	-0-

II. GENERAL STATEMENT AND SUMMARY

BUDGET REQUEST

The Administration's budget request for the Appalachian Regional Development Program for FY 1997 is $170 million. This includes $83.2 million for the Appalachian Development Highway Program, $83.2 million for non-highway area development programs, and $3.6 million for the salaries and expenses requirements.

This request for $170 million for FY 1997 is a $13 million decrease from the amount requested by the Administration for FY 1996, and is the same as the amount appropriated for FY 1996. This request represents a level of activity that will allow the Commission to continue to operate a viable regional economic development program in the 13 Appalachian States.

Compared to the 1996 appropriation, the proposed increase for area development programs is $25.8 million, with a corresponding decrease in highway programs. This reflects a balanced regional development program, as has been previously proposed by the Administration. The Administration considers that the additional resources applied to area development programs would encourage more economic development than would occur if used for highway construction, considering the construction cost per mile in much of the Region.

BUDGET SUMMARY BY PROGRAM

Highway Program. The budget request for the Appalachian Development Highway System is $83.2 million. This includes $79.7 million for corridors, $2 million for access roads and $1.5 million for administering the program. It is expected that by the close of 1997, a total of 2,330 miles of the 3,025 miles authorized by the Congress will have been placed under construction (77%), of which 2,220 will be complete (73%). Highway funds are allocated to the Appalachian States by a Commission-approved formula based on recent cost-to-complete estimates. There is evidence that the highway system has been crucial to economic development of the region.

Non-Highway Programs. The budget request for non-highway Area Development programs is $83.2 million. Most of the non-highway funds are allocated to the States based on a Commission-approved formula. (Funds which are not allocated to the States are generally used for special needs approved by the Commission).

ARC's authorizing statute recognizes that the Appalachian States are best able to determine economic development needs and priorities within their borders. Under ARC's Federal-State partnership, area development projects are generally developed at the local level, reviewed by the States and incorporated into each Appalachian Governor's investment program. The Federal Co-Chairman provides policy recommendations to the Commission, based on Administration priorities. The concurrence of a majority of the Appalachian Governors and the Federal Co-Chairman is required to make policy and to approve State plans and investment packages. The Federal Co-Chairman's budget request anticipates a closely balanced use of the Commission's non-highway resources with equal emphases on human development, physical development, and business development. **However, the actual expenditures in each economic development category depend on the actual projects submitted by the States and Commission decisions. Under this Federal-State partnership, the Federal government does not specify spending by category to the States.** Past ARC budget submissions have presented the Federal Co-Chairman's recommended funding by area development category. However, these guidelines were not binding on the States. To avoid possible misinterpretation, categorical spending recommendations for area development are discontinued for FY 1997.

The Federal Co-Chairman's recommendations for the Area Development Program are as follows: Of the amount requested, $77.2 million would be used for area development projects. A total of $5.3 million would be used to continue the support of local development districts and the region-wide Commission programs of technical assistance. Federal agencies that assist in administering these programs would require $0.7 million.

Salaries and Expenses. The request for salaries and expenses, which provides for the 50-percent Federal contribution for Commission staff and the full cost of the Federal Co-Chairman's staff, is $3.6 million. This includes $1.2 million for the Federal Co-Chairman's staff, including the Office of the Inspector General, and $2.4 million for the Federal contribution to the Commission's administrative expenses. The Appalachian Regional Development Act requires that the member States match the Federal contribution to the Commission's administrative expenses. The Commission's administrative budget is based on a non-Federal Commission staff of 50 positions in 1997, the same as in FY 1996. The use of prior-year balances will provide for a Commission administrative budget in 1997 of $2.6 million (from Federal contributions only).

The Budget Request by Subprogram and the Commission's Total Operating Budget are shown on the following pages.

The ARC Partnership Model Program Structure and History

The Appalachian Regional Commission is a unique Federal-State partnership which was established by Congress in 1965 to bring some 396 counties (now 399 counties) in the Appalachian Region into the mainstream of the American economy. The Commission was established as a partnership between the Federal government and the thirteen member States. The ARC appropriation is matched on an average of 2 to 1 by other funds. The Federal Co-Chairman of the Commission — appointed by the President and confirmed by the Senate — has one-half of the votes on the Commission and the 13 Governors have the other half. No policy can be set or any money spent unless the Federal Co-Chairman and a majority of the Governors reach agreement. The ARC model represents neither the dictation of policy from Washington nor the abdication of policy to the States. Rather, it is a true collaboration.

FY 1997 BUDGET REQUEST BY SUBPROGRAM
(thousands of dollars)

	1996 Enacted	1997 Request	Increase or Decrease
I. Appalachian Regional Development Programs			
A. Highway Program:			
1. Development Highways	106,400	79,680	-26,720
2. Access Roads	1,000	2,000	+1,000
3. Administration and Planning	1,600	1,500	-100
Subtotal, Highways	109,000	83,180	-25,820
B. Area Development Programs:			
1. Area Development*	52,055	77,875	+25,820
2. LDD Support	4,400	4,400	-0-
3. Technical Assistance	900	900	-0-
Subtotal, Area Development Program	57,355	83,175	+25,820
Subtotal, Regional Development Programs	166,355	166,355	-0-
II. Salaries and Expenses			
A. Federal Co-Chairman's Office and Office of Inspector General	1,245	1,245	-0-
B. Federal Share of Administrative Expenses	2,400	2,400	-0-
Subtotal, Salaries and Expenses	3,645	3,645	-0-
GRAND TOTAL	170,000	170,000	-0-

***Actual Area Development Spending by category depends on State submissions and Commission policy.**

TOTAL OPERATING BUDGET

	(Thousands of Dollars)		
	FY95 Actual	FY96 Enacted	FY97 Estimated
1. Appropriations:			
Appalachian Regional Dev. Programs	268,638	166,355	166,355
Salaries and Expenses	3,343	3,645	3,645
Total Appropriation	271,981	170,000	170,000
2. Other Funding Sources:			
States' Contribution to Commission Admin Expense	2,312	2,400	2,400
States' Washington Office	347	310	310
Repayment of Housing Loans			
Recovery of Prior Year Obligations	6,700	4,000	-
Total, Other Funding	9,359	6,710	2,710
3. Use of Prior Year Funds:			
A. Unobligated Balances Brought Forward:			
Appropriations:			
Approved, not obligated	49,484	25,370	
Unobligated Highway Commitments	33,846	81,514	
Other Balances	15,718	23,082	1,018
Other Funds	1,007	1,019	-
Subtotals	100,055	130,985	1,018
B. Unobligated Balances Carried Forward:			
Appropriations:			
Approved, not obligated	(25,370)	-	
Unobligated Highway Commitments	(81,514)	-	
Other Balances	(23,082)	(474)	-
Other Funds	(1,019)	(544)	(1,018)
Subtotals	(130,985)	(1,018)	(1,018)
C. Unobligated Balances Used	(30,930)	129,967	-
4. Total Obligations, Gross	250,410	306,677	172,710

The landmark report of the President's Appalachian Regional Commission (PARC) in 1964 said of Appalachia,

> *Graphs and tables can hardly relate the acutely personal story of a child in a remote valley, his horizon of opportunity limited to the enclosing hills; nor the despair of his father, who, idled by forces beyond his control and seeing no prospects of future employment, must live month in and month out with the vision of that child repeating his own history.*

The scope, complexity, and pervasiveness of the problems facing Appalachia made it apparent in 1964 that no existing organization, process, or program could solve them. The Appalachian Regional Development Act of 1965 established the Appalachian Regional Commission as an innovative and unique Federal-State partnership to help Appalachia achieve parity of economic opportunity with the nation as a whole and economic self-sufficiency. The mission for the new agency was broad, befitting the problems in the Region: "to assist the Region in meeting its special problems, to promote its economic development, and to establish a framework for joint Federal and State efforts toward providing the basic facilities essential to its growth." Funds appropriated for Commission programs could be used flexibly for comprehensive purposes — from highway corridors to health clinics — and could specifically supplement and extend grant funds provided by other Federal agencies.

ARC's programs encompass nearly the full range of Federal domestic activities — highway construction, education and training, health care, housing, enterprise development, export promotion, telecommunications, and water and sewer infrastructure. ARC funds are designed to be supplemental, not duplicative, of other Federal funds. ARC funds are typically the "glue money" that pulls together private, local, State and other Federal funds, and provides technical assistance for small local communities. Our statute recognizes that many Appalachian communities may not have the funds to satisfy the local match required by many Federal programs. ARC works closely with numerous Federal agencies who administer our funds in combination with their funds, and State, local and private funds.

The structure of the Appalachian Regional Commission was designed to ensure Federal, State, and local cooperation to address the needs of the Region. The Region was defined as all of West Virginia and parts of twelve other states — Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia — an area of 195,000 square miles and about 21 million people.

Targeted assistance to the Region first helped to build or renovate its basic facilities such as schools, clinics and hospitals, industrial sites, and libraries; and to strengthen its transportation infrastructure of airports, short line railroads, and highways. Some of the Commission area development programs were widely recognized as national models for development, particularly its pioneering efforts in rural primary medical care that largely eradicated the most severe health problems of Appalachia. The Commission then looked to the future. Today, telecommunications and other technologies are essential elements of infrastructure for a Region that must survive in a global economic environment. The implications are profound for all Commission programs: for the first time in history, a New York or Tokyo business can operate from or to an Appalachian hollow.

Strategic Planning The current Federal Co-Chairman urged the Commission to use the occasion of its 30th anniversary year to undertake a top-to-bottom strategic assessment and planning process. Dramatic changes have taken place in Appalachia since 1965, and the Appalachian Regional Development Act of 1965 foresaw the need for constant redirection of ARC programs to keep pace with this change. The Act also called for public participation in the realignment process and for the convening of regional forums to identify pressing needs and emerging issues. A framework for a management strategy based on the principle of participatory democracy — the same process that has emerged over the past decade in many public and private organizations — was embodied in this farsighted legislation.

The Commission has successfully completed this comprehensive strategic planning process, not by hiring an outside firm to do it for the ARC, but by undertaking an exhaustive process of study itself. ARC's State partners, local governments, public and private entities with a stake in Appalachia's well-being, and the people of the Region have all participated in this process.

The process included commissioned research, consultations with panels of experts in different areas, four town meetings in the Region, focus groups, and a regionwide satellite town meeting. The strategic plan charts ARC's future course, and defines the full scope of managerial and front-line strategies needed to support excellence in ARC "customer service." A detailed description of the strategic planning efforts and accomplishments appears in Section III. With the formal adoption of the strategic plan at the Governors' Quorum meeting in February 1996, **ARC's mission is to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and an improved quality of life.**

Regional development projects submitted by the Governors for 1997 and beyond will be based on the strategic plan and the Governors' strategies to accomplish ARC's mission. ARC's goals are as follows:

- Appalachian residents will have the skills and knowledge necessary to compete in the world economy in the 21st century.
- Appalachian communities will have the physical infrastructure necessary for self-sustaining economic development and improved quality of life.
- The people of Appalachia will have the vision and capacity to mobilize and work together for sustained economic progress and improvement of their communities.
- Appalachian residents will have access to financial and technical resources to help build dynamic and self-sustaining local economies.
- Appalachian residents will have access to affordable, quality health care.

Specific objectives were developed for each goal.

Guiding Principles To guide the development of goals and strategies to achieve the vision of a viable and self-sustaining economy for the Region, ARC adopted the following principles:

- The most valuable investment that can be made in the Region is in its people.
- Entrepreneurial economies that focus on high value-added goods and services offer the best future for many parts of the Region.
- Strategies and objectives should take into consideration participation in the global economy.
- Economic development should be community-based and should emphasize local decision making.
- ARC investments should take advantage of technology and telecommunications applications.
- ARC should promote an atmosphere of open and productive communication among all stakeholders in the Region.
- ARC should focus special attention on the areas of greatest need.

These principles describe how the Commission is committed to operating on a day-to-day basis.

Procedures. The Commission makes allocations of appropriated funds among the 13 States for highways and area development programs. Within the area development program, a special allocation is made to nine States for projects in designated distressed counties. This targeting of resources to distressed counties is an important component of ARC's strategy to enable development in these areas and a powerful example of targeting possible under a Commission model.

The 1996 Conference Report on ARC appropriations directed the Commission to increase targeting of resources to distressed counties. In response, the Commission increased this special allocation from 20% of area development funding to 30% for 1996. The Commission is currently studying the issue of distressed county definitions and funding allocations. ARC anticipates that further refinement of the distressed counties program will occur for 1997 allocations.

Under the leadership of the current Federal Co-Chairman, the Commission has developed and launched three major, long-term regional initiatives: (1) internationalization of the economy and its implications for Appalachia; (2) telecommunications; and, (3) leadership and civic development. Regional initiatives, which capitalize on special opportunities for development in the Region, are also funded within the Area Development Program. The Commission programmed $5 million for these three initiatives in 1996. The Federal Co-Chairman anticipates that these initiatives will be funded at a minimum of $6 million in 1997. The Federal Co-Chairman is also leading the Commission in developing a fourth regional initiative in "building entrepreneurial communities" and will seek additional resources from the area development allocation for this purpose.

See Section III for further discussion of these regional initiatives.

Within the State allocations, each Governor submits for approval specific projects which usually have been developed in cooperation with the multi-county local development districts. The projects are included in the annual State development plans and investment programs which must be approved at a Governors' Quorum Meeting of the Commission, with the Federal Co-Chairman representing the President's interest in the Commission's deliberations and decisions. By this blending of States' concerns and priorities with national policy, the Commission makes the joint decisions and determinations that constitute its regional development program.

The Commission has adopted certain funding limitations that apply in addition to applicable statutory requirements. In the distressed counties program, ARC can cover 80 percent of project costs. The majority of the Region's counties are limited to 50-percent funding, except for human development projects. To encourage participation in human development, any of the Region's counties can receive up to 80 percent of the cost for qualifying projects. Counties which have attained a specified level of economic health and are so designated by the State are limited to 30 percent ARC funding (except for human development projects).

From its inception, participation in ARC's unique program has been characterized by mutual respect and bipartisanship among Commission members and recognition that each member has a vital role to play in ensuring the integrity of the process. Thus, the Commission has had the flexibility to respond quickly and effectively to a wide variety of economic development issues. While much remains to be done, the ARC process has been a key factor in enhanced economic growth and improved quality of life throughout the Region.

III. INNOVATIONS

> **"ARC's mission is to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and an improved quality of life."**

As discussed in the General Statement and Summary Section, ARC is a unique Federal-State partnership, not a traditional Federal agency. The Federal government does not dictate projects to the States. Instead, ARC projects are generally developed at the local "grass-roots" level, and recommended to the Commission for funding by the Appalachian Governors. This approach provides States the necessary flexibility to address their greatest economic development priorities. With the current interest in devolving decision-making to state and local governments, it is interesting to note that ARC has had 30 years experience doing exactly this. Our mission statement, which resulted from our strategic planning efforts, indicates our strong grassroots and customer service orientation.

This section describes ARC's innovative, completed, ongoing and planned activities to improve operations to accomplish its mission.

Strategic Plan

ARC has completed its eighteen-month strategic assessment and planning effort. This integrated four-phase process was initiated in April 1994, at the suggestion of the Federal Co-Chairman. The strategic plan is the blueprint for the future of ARC programs. *Phase I* included analysis and diagnosis of the issues facing the Region. *Phase II* developed a consensus concerning future direction of the Commission and set goals. *Phase III* developed an agenda and strategy to meet these goals. *Phase IV* includes management policies and principles to guide the agenda.

The following summarizes the major activities ARC conducted in completing the strategic plan.

Phase I: Analysis and Diagnosis. This phase included a socioeconomic review of the Region, and a review of ARC's programs and its model. State-level meetings provided the perspective of state ARC staff on the Commission's role for the future. To gain public input into the process of framing the issues for the future, the Commission conducted nine consultations with panels of experts in such areas as health and education and held four interstate town meetings, 13 focus groups, and a televised town meeting that was broadcast by satellite throughout Appalachia.

Phase II: Consensus and Goals. This phase involved synthesizing and reaching regional consensus on the findings of Phase I. Information gained during Phase I was summarized for analysis by the Federal co-chairman and State alternates. From this material, certain goals began to emerge.

Phase III: Vision, Strategies, and Timetables. At three different working sessions, ARC staff met with the Federal Co-Chairman and State Alternates to develop a vision and mission for ARC, to craft goals and objectives, and to begin developing strategies for goal achievement. At these sessions a timetable was created for implementing the plan and beginning the process of identifying management issues related to achieving the mission.

Phase IV: Management Policies and Principles. The final phase of the process involved crafting management policies, guidelines, and principles to be incorporated into the ARC Code. This process was led by Commission staff and was subject to review and approval by the Governors and the Federal Co-Chairman.

The process used in creating this plan and the resulting product are unprecedented: It is the first performance-oriented plan of this scope and magnitude developed collaboratively by an agency and 13 States, and endorsed by a Federal Co-Chairman and 13 Governors. It illustrates the strength and value of the ARC model for intergovernmental relations. What has emerged from this process is a vision of the Region's future and a strategic plan for achieving it.

As a result of completing the strategic plan, ARC has already implemented several operational improvements. The Commission's Policy Development Committee (which includes representatives from four States) is developing revised guidelines for project submissions; benchmarking will be used in program development; and interdisciplinary work teams were formed to address the needs of the Commission and its customers. The strategic planning process is allowing ARC to complete its mission more effectively and at less cost.

Development of Benchmarks and Performance Measures

The Commission is in the process of developing benchmarks and performance measures for the highway and area development programs. The expectation is that benchmarks would include best practices that fully satisfy customer requirements and that performance measures would include valid performance objectives to measure the progress towards strategic goals.

Targeting of Resources to Areas of Greatest Need

ARC area development programs have evolved from a largely "growth center" approach to economic development in the early years, to an increasing emphasis on a "worst first" approach. The Commission has established a distressed counties program which targets resources to those Appalachian counties that severely lag the nation in economic development (currently 115). These counties are defined as those that have (1) per capita income no greater than two-thirds the U.S. average; (2) three-year unemployment at least 150 percent of the U.S. average; and, (3) poverty rate at least 150 percent of the U.S. average; or (4) at least twice the national poverty rate plus one other above economic indicator. There is a special allocation of 30% of area development funds which can only be used in these 115 distressed counties in nine states. The four Appalachian states with no distressed counties receive none of this funding. Additionally, there is a higher match, 80% versus 50% of project costs, to encourage the states to concentrate additional resources in these counties.

The 115 distressed counties in the Region are listed at the end of Section V.

The 1996 Conference Report on ARC appropriations directed the Commission to increase targeting of resources to distressed counties. In response, the Commission increased this special allocation from 20% of area development funding to 30% for 1996. The Commission is currently studying the issue of distressed county definitions and funding allocations, and anticipates that further refinement of the distressed counties program will occur for 1997.

The Commission is also studying the issue of funding for its economically competitive counties. These are defined as counties which have attained (1) per capita income equal or greater than 80% of the national average; (2) three-year unemployment rate less than or equal to the U.S. average; and, (3) poverty rate less than or equal to the U.S. average. Counties which are so designated by their state receive a maximum ARC match of 30% for area development projects (except for human development projects, where an 80% maximum match applies for all counties). Currently, nine counties in the Region are designated economically competitive out of the 33 which qualify. The Commission encourages states to limit funding to designated and non-designated competitive counties to a 30% ARC contribution. The Federal Co-Chairman favors mandatory designation and a reduced ARC match for all competitive counties.

The Federal Co-Chairman is prepared to work with Congress to explore ways to better target the Commission's resources to those parts of the region that remain in the greatest need -- for example, crafting a method to limit or eliminate resources available to those counties that have attained certain levels of economic strength and diversity.

Regional Initiatives

In FY 1995, at the initiation of the Federal Co-Chairman, the Commission developed and launched three major regional initiatives which are crucial to further development of the region: (1) internationalization of the economy and its implications for Appalachia; (2) telecommunications; and (3) local leadership and civic development. These three initiatives are complementary and are key to the Commission's goal of creating entrepreneurial communities across the region. They also reflect the Commission's commitment to planning and strategic program development. The Commission has formally adopted a goal for each regional initiative and defined the program areas which are eligible for funding. Because of differences in capabilities and needs, each Appalachian State defined its own program objectives and developed its own strategy to accomplish its objectives and advance the Commission's regional goals. The Commission set aside $6.2 million from State area development allocations in 1995 to start the program. Due to reduced area development allocations, these initiatives are funded at $5 million in 1996. It is hoped that these initiatives will be funded back at the $6 million level in 1997. The Federal Co-Chairman also anticipates that a fourth regional initiative in "building entrepreneurial communities" will be fully developed during 1996 and funded in 1997.

ARC's goals for the three regional initiatives are:

Internationalization of the Economy

- **Small and medium sized businesses throughout Appalachia will have the commitment and capacity to participate in the global market.**

The increasing internationalization of the economy creates both challenges and opportunities for Appalachian industries. Small and medium-sized Appalachian businesses are challenged to remain competitive and viable in a global economy, in which foreign businesses have improved access to American markets. Yet, the global economy also creates opportunities for Appalachian business expansion by increasing exports. Since every $1 billion in exports creates between 15,000 and 19,000 jobs (estimate from the Office of the U.S. Trade Representative), encouraging exports is a promising way to create jobs across the region. However, rural Appalachian businesses have been more isolated, less aware of global markets, and less able to pursue exporting activities than urban businesses. This initiative addresses this deficiency by encouraging projects that will stimulate export activity of the region's small-and medium-sized businesses. Assistance provided under this initiative includes items such as market size and marketing information, financial and technical assistance, and training.

Telecommunications

- **Communities throughout Appalachia will have access to the Information Highway, and their people will have the capacity to benefit from it.**

Advanced telecommunications networks can help remove the barriers to growth in Appalachia posed by distance and spread the benefits of publicly-funded resources to rural communities. Just as Appalachia's economy suffered when the interstate highway system bypassed the region, the region risks being left behind if it is bypassed by the information superhighway. Projects funded under this initiative promote the development of telecommunication technologies and applications by providing planning and technical assistance, education and training, and coordination and advocacy. These projects are intended to help the Region tie quickly and successfully into the information superhighway. Traditional investments in telecommunications equipment and infrastructure are discouraged under this initiative because of limited funding.

Leadership and Civic Development

- **The people of Appalachia will have the leadership and organizational capacity to work together for their economic and community development.**

Developing self-sustaining local economies requires a foundation of civic institutions and local leadership that will enable communities to work together to solve local problems. Building civic capacity begins with developing civic institutions and promoting widespread participation in them. This initiative provides support for activities such as leadership and organizational development and training, technical assistance, start-up operational expenses, small-scale community development projects, and resource development and coordination activities.

Establishment of Benchmarks

To ensure that the States' combined efforts advance the goals of the regional initiatives, the Commission is establishing benchmarks against which progress across the Region will be measured annually. The States have conducted surveys of their resources and needs in each initiative area, which has resulted in a statement by each Governor on how his State will participate in achieving the regional goals. Individual projects submitted are measured against how the project implements the State's strategy, how it achieves the State's objectives, and how well it advances the Commission's regional goals.

Internal Operations

ARC closely studied internal operations and ways to improve customer service over the past eighteen months. Several operational improvements have been implemented, including:

- Installation of a computer network, which has greatly improved communication among staff, the States, Local Development Districts (LDDs), and others. This system also provides streamlined project control and review processes, faster project approvals, and more complete project data.

- ARC staff reorganization to better serve current and future needs as defined by the strategic plan, and to make operations more efficient. (This reorganization is described in detail in Section VI.)

- Development of an internal accounting system with the assistance of Financial Management Service (Department of the Treasury). Historically, ARC has been dependent on the Department of Commerce for all accounting functions through a Memorandum of Understanding which dates back to 1965. Although there are start-up costs, institution of an internal system will reduce long-term costs, and allow for more rapid data availability and improved internal control.

IV. REGIONAL ECONOMIC DATA

Appalachia, as defined by law, is a diverse region extending more than a thousand miles from the southern tier of New York to northeast Mississippi. Altogether, it includes 399 counties comprising all of West Virginia and parts of twelve other States. It is home to about 21 million people. To appreciate the diversity of the area, it is useful to think of Appalachia in terms of three subregions: Northern Appalachia, with its mature industrial base; Central Appalachia, long dominated by its coalfields; and, Southern Appalachia, influenced by its nearby urban centers which have been powerful engines of growth. Regional developments since the beginning of the ARC program in 1965 have diminished some of the differences between the Region and the nation, but many challenges remain.

Achieving Real Gains

ARC investments have produced greatly improved standards of living and enhanced economic opportunities for the people of Appalachia. The best output measure of ARC's performance is the change in socio-economic condition of the Region:

- When ARC was established, one of three Appalachians lived in poverty, 50 percent higher than the national rate. By 1990, the poverty rate had been cut in half, and the spread between Appalachia and the US had been reduced to two percentage points (15.2% for Appalachia versus 13.1% for the US). (1990 Census data)

- The percentage of adults with high school education has doubled -- from 32% in 1965 to 68% in 1990; and the region's infant mortality rate has been cut by two-thirds, going from 25.7 (deaths per thousand births in 1963), to 8.4 in 1993. (1990 Census data)

- Per capita income and educational attainment rates have improved substantially, indicating improvements in the quality of life in the Region and progress on longstanding problems.

- More than 700,000 Appalachians now have access to clean water and sanitation facilities through ARC projects.

- A network of more than 300 primary health care clinics and hospitals has been completed with ARC funding and now serves some four million Appalachians.

- Grants to revolving loan funds have totaled $18.7 million, assisting 822 small businesses in creating 8,000 new jobs.

An independent assessment, supported by the National Science Foundation, at West Virginia University's Regional Research Institute examined 27 years of Appalachian regional development. The study found that Appalachian counties grew significantly faster than their "twin" counties outside of Appalachia. These growth differences do not stem from subregional growth patterns or county types, such as degree of urbanization or coal production dependence. The study accounts for this by comparing Appalachian counties with "twin" or economically matched counties outside the Region and attempts to compare the actual changes in Appalachian counties with the changes that would have occurred without the ARC program.

Between 1969 and 1991, total personal income and earnings grew 48 percent faster in the Appalachian counties than in their twins. Population grew 5 percent faster, and per capita income 17 percent faster. Translated into dollar terms, the income growth differences between Appalachian counties and their twins meant $8.5 billion in additional income for Appalachia in the one year of 1991. There were variations within the subregions. Central and Southern Appalachian counties grew faster, on average, than their twins did in income, earnings, and population. The Northern Appalachian counties kept pace with their twins except in manufacturing employment growth.

A Region of Contrasts

The major story of Appalachian economic development over the past thirty years is how it has changed from a Region of almost uniform poverty to a Region of contrasts, ranging from areas that have made major accomplishments in developing diversified economies (but are still subject to cyclical swings), to areas still suffering from structural changes in the industrial economy (e.g., coal mining, and manufacturing declines), to severely distressed areas that are at a "pre-development stage," and still require basic essentials, such as water and sewer systems.

Increased global competition and technological change have resulted in significant restructuring of the industries that have employed Appalachians in the past and the ones that will provide their ivelihood in the future. Declines in manufacturing and mining sectors, however, have severely and disproportionately affected much of the Region, especially where local rural economies have been or continue to be dominated by a few large establishments. As a whole, the Region, like the nation, emerged from the 1980s with the largest growth in the number of jobs in services, retail trade, and government. The attached maps illustrate the unevenness of that growth and show the geographic concentrations of high poverty, unemployment, and low income across the Region.

The most severe problems are concentrated in the rural central part of the Region, although the area with the worst problems has shifted somewhat over time and become smaller. Portions of Appalachian Ohio, particularly the southeastern coal area and declining industrialized Ohio River Valley area, now exhibit a level of distress similar to that traditionally observed in Central Appalachia. On the other hand, Appalachian Tennessee, once including some of the Region's poorest areas, is now more economically diverse. Similarly, parts of southwestern Appalachian Kentucky are showing population growth, immigration, and job growth in textiles, apparel, wood and food products and ndustrial machinery. Most of Central Appalachia, however, continues to face the most severe economic development problems.

The 109 metropolitan counties of the Region have generally fared far better than its 290 rural counties. Despite general improvements in the Region, the rural counties of Central and Southern Appalachia, and to a lesser extent the rural areas of the Northern part of the Region, are not as well off as metropolitan parts of Appalachia. The economic diversity of the Region is keenly reflected in ts subregional data.

Indicators of Change

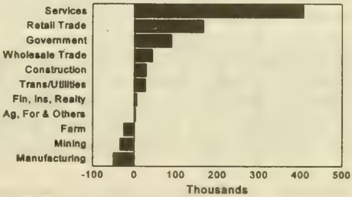
Population. Between 1990 and 1994, while the United States gained population at the rate of 4.7 percent, the Region's growth was slightly slower at 3.7 percent. Only 42 Appalachian counties, spread among nine state parts, lost population between 1990 and 1994. Metropolitan counties grew 4 percent, and nonmetropolitan counties grew by 3.2 percent. Subregional patterns vary. The largest change in the subregions was in Southern Appalachia (6.1 percent), followed by Central Appalachia (3.1 percent), and Northern Appalachia (1.6 percent).

Employment. Appalachia's civilian labor force topped 10 million in 1992, and the number of employed people has increased in most counties, including the Region's most economically distressed counties. By 1994, the Region's unemployment rate for the year was 6.2 percent, compared with 6.1 percent in the United States. The Region's unemployment rates were 5.6 percent for metro counties, and 7.2 percent for non-metro counties in 1994. Although the October 1995 monthly unadjusted unemployment rate for Appalachia was 5.3 percent (US Rate = 5.2 percent), some parts of Central Appalachia had unemployment rates as high as 20 percent. This greatly understates the lack of job availability in Central Appalachia since high unemployment rates are coupled with low labor force participation rates. Many potential workers have simply given up in their efforts to find jobs.

Job Growth. Between 1969 and 1993, the job growth rate in Appalachia approximated the US rate of 42.8 percent. Some 157 Appalachian counties had faster job growth than the national average between 1969 and 1993, but 122 counties grew less than half as fast as the nation. With some exceptions, Appalachia divides into a southern portion where the number of jobs grew faster than in the nation and a northern portion where they did not.

In recent years, the Region's job growth rate has been greater than the national rate. Between 1988 and 1993 the growth rate for jobs in Appalachia was 7.3 percent, compared with 4.9 percent in the nation. Metropolitan Appalachia grew by 7.7 percent, faster than the US rate of 4.3 percent. Nonmetropolitan Appalachia, with job growth at 6.6 percent, lagged the nonmetropolitan US growth rate of 7.7 percent. Once again the subregions show their diversity with the number of Northern Appalachia's jobs increasing by 4.9 percent, Central Appalachia at 8.7 percent, and Southern Appalachia at 9.5 percent.

Appalachian Employment Change 1988-1993



Bureau of Economic Analysis Industry Sectors

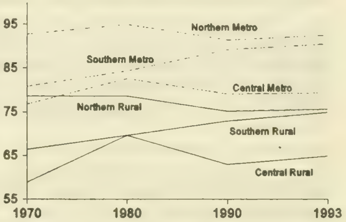
Job Quality and Location of Growth Industries. One analysis of jobs in 54 industries that are growing and paid above average wages in 1992 examines the quality of jobs that are being created in the Region and nation. The jobs vary widely, including hospitals, offices and clinics of medical doctors, electric services, chemicals, computer and data processing services, commercial banks, management and public relations, legal services, and telephone communication. The presence of all 54 industries in Appalachia indicates that efforts to diversify the economic base of the Region are succeeding, and it is becoming more integrated into the national economy. There are 1.6 million jobs in these industries in the Region, accounting for 16 percent of Appalachian employment. This is two percentage points less than the national share of 18 percent employment (25.4 million jobs) in these industries. Some parts of the Region have more of the 54 industries than other parts. For instance the counties surrounding or adjacent to Birmingham, Atlanta, Pittsburgh, and Charleston, West Virginia, have more jobs in 20 of these industries than the national average.

Income. Per capita income, perhaps the best overall indicator of economic well-being, grew strongly during the 1970s. The Region began to close the gap with the rest of the country and improved from 80.3 percent of the U.S. average to peak at 83.4 percent in 1977. During the 1980s, however, the Region slipped further behind as income in some other sections of the country grew rapidly. **By 1993, the Region's share of the nation's per capita income was 83.6 percent, barely surpassing the peak 1977 level.**

An examination of per capita income growth for rural and metropolitan counties of each of the subregions highlights the contrasts in the Region. In rural Northern Appalachia, per capita income has lost ground relative to the national average, while metro areas have gained slightly. In Southern Appalachia, rural areas have gained steadily but slowly to about 75 percent of the US average, and metropolitan areas have gained to almost the levels of northern urban centers. In Central Appalachia, strong gains in the 1970s were largely lost in the 1980s, so that rural counties of that subregion have only reached 65 percent of the national average.

Per Capita Income As Percent of U.S. Average

Metro and Rural Counties of Subregions



Education. The Region's educational attainment levels have improved remarkably. For the first time, the percentage of people aged 18 to 24 who have completed 12 or more years of schooling is slightly higher in Appalachia (77 percent) than in the United States (76 percent). However, considerable educational deficits remain in portions of the Region, particularly throughout much of Central Appalachia, where the average high school completion rate for youth 18 to 24 years old is only 68 percent. Adult high school completion rates are at the national average for metropolitan counties of northern Appalachia, but are still only 59.4 percent for rural Southern Appalachia and only 51.7 percent for rural Central Appalachia. Furthermore, only 68.4 percent of Appalachian adults aged 25 years and older are high school graduates compared with 75.2 percent for the United States.

Infant Mortality. The Region substantially closed the gap with the rest of the nation on infant mortality. By 1993 the Region's infant mortality rate was 8.4 (per 1,000 births) compared with 8.2 for the United States -- a drastic drop from the rate of 25.7 in 1963. The state part rates ranged from a low of 7.6 in Appalachian Tennessee to a high of 14.2 in Appalachian Mississippi. Most of the state part rates clustered around the Regional rate.

Poverty. The 1990 Census revealed a pattern of retreat from earlier reductions in poverty rates: during the 1980s, the percentage of Appalachians living in poverty was 14.0 percent, but by 1990 this percentage had risen to 15.2 percent. US poverty rates increased from 12.4 percent in 1980 to 13.1 percent in 1990. Appalachian poverty rates range from slightly lower than the national average in metropolitan counties of the northern and southern portions of the Region, to worse than average levels of about 16 percent or more in rural areas of North and South Appalachia, to nearly 27 percent in rural Central Appalachia. **More than 20 percent of the youth in northern and southern rural areas are growing up in poverty, and an even higher 34 percent of youth in Central Appalachia live in poverty**.

Implications for Development

The differences in social and economic indicators between rural and metropolitan areas and across the subregions reflect the changes in local economies and call for different strategies to enhance capacities for self-sustained development in the future.

The northern subregion, including parts of Maryland, New York, Pennsylvania, Ohio, and West Virginia have had the highest incomes, urbanization, education levels, and concentration of manufacturing employment in the Region. However, this area is still struggling with the legacy of the late 1970s -- rising unemployment, outmigration, and obsolescent infrastructure. Almost one-quarter of the counties in this subregion are designated distressed counties by the Commission.

In 1965, Southern Appalachia was a mix of urban and rural populations, with manufacturing providing an increasing share of employment. From its base of textiles, apparel, food, lumber and furniture, and tobacco products, the subregion's manufacturing sector has substantially diversified. Diversification has been aided by the auto industry locating new plants in and around Southern Appalachia. The most important influence of all has been the phenomenal growth of several strong urban areas in or just outside the fringes of the Region. Much of the rural south has not shared this prosperity, however.

The 85-county area consisting of parts of Kentucky, Virginia, West Virginia, and Tennessee, that comprises Central Appalachia continues to face longstanding problems of isolation, human development deficits, and job declines in mining. It had little capacity to undertake development of sufficient human and physical infrastructure to sustain healthy and stable local economies. Much of the subregion never recovered after the 1982-83 recession, and still experiences extraordinarily high poverty rates. This area includes the largest concentration of distressed counties in the Appalachian Region. Nearly two-thirds of its counties are designated as distressed by the Commission. Only in the most recent data are their signs that Central Appalachia's economy is beginning to experience growth in jobs and employment.

This diversity of the Region amply demonstrates the need for flexibility in programs supporting regional development. There are three kinds of communities that can be defined from an economic development perspective:

- areas, largely in the Northern subregion, that experience cyclical problems;
- areas, largely in northern and in rural areas, where local economies are suffering from structural shifts in traditional industries; and,
- underdeveloped and severely economically distressed areas, mostly in Central Appalachia and other rural areas of the Region, that have little or no capacity for sustained economic development on their own, and which are relatively unable to deal with change.

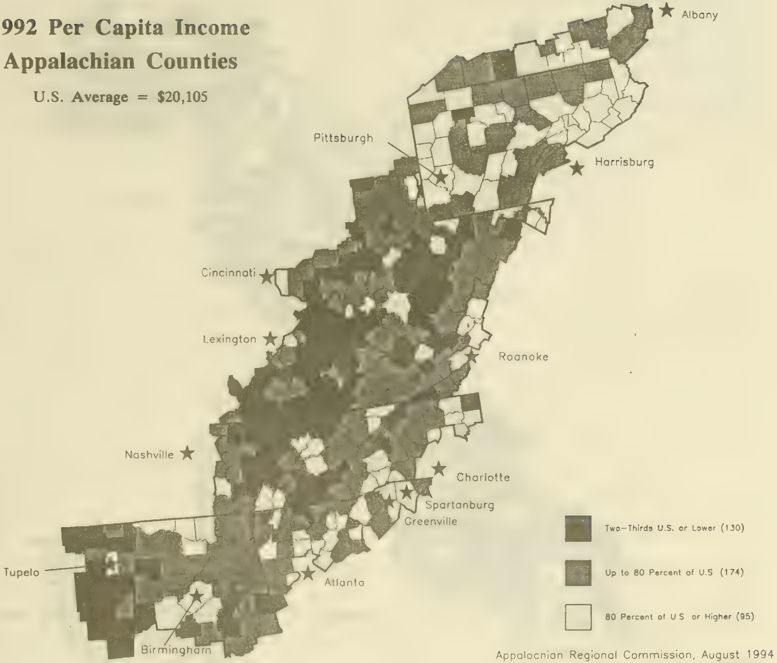
The emphasis for future development of the Region does not depend primarily on the kinds of industrial recruitment activities that have characterized many programs in the past. Rather than seeking short-term growth, the emphasis needs to be on providing the means for increased local entrepreneurial activity and locally-grown businesses; on assuring an adequate human resource base to become globally competitive and able to adjust to change; and on building the physical infrastructure that is required to sustain and create economic opportunities. The Commission's area development programs therefore appropriately stress efforts to improve educational and training systems -- particularly in math, science and entrepreneurial development, expanding business development support and technological capacity, and addressing the need to assure that the Region is not bypassed by the telecommunications "highways of the future" as it was by the roads of the past. Other areas of concern are the need to expand access to credit and capital for emerging businesses and to create new international ties for Appalachian producers. Success will depend in part on continuing to develop the capacity of local leaders to understand the implications of the globalization of the economy, and to be able to facilitate future economic development planning efforts. ARC's strategic plan therefore stresses these activities.

In the most distressed and poor areas of the Region that have always had the least prospects for growth, regional development does not always mean a growth scenario in traditional economic development terms. A development priority for these areas is to assure that people and communities have increased potential for participation in the economic mainstream. Long range investments must be made to assure access to basic human services to achieve that goal.

ARC's goal is to have placed throughout the Region the "building blocks" which will allow communities to achieve their greatest potential for self-sustaining economic development. Given the diversity of the Region, this will vary with the current level of development in the area, resource base, needs, and capacity.

1992 Per Capita Income Appalachian Counties

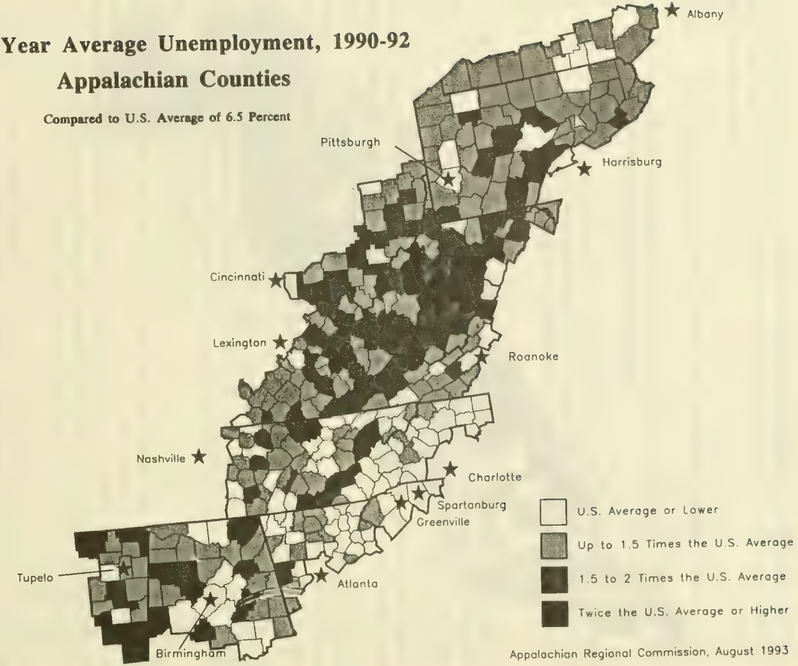
U.S. Average = $20,105



Appalacnian Regional Commission, August 1994

Three-Year Average Unemployment, 1990-92
Appalachian Counties

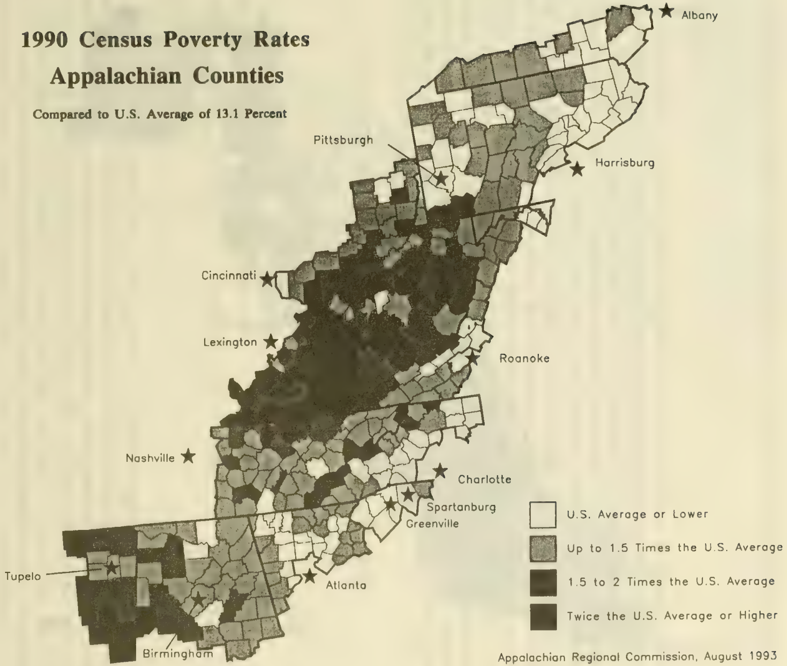
Compared to U.S. Average of 6.5 Percent



Appalachian Regional Commission, August 1993

1990 Census Poverty Rates
Appalachian Counties

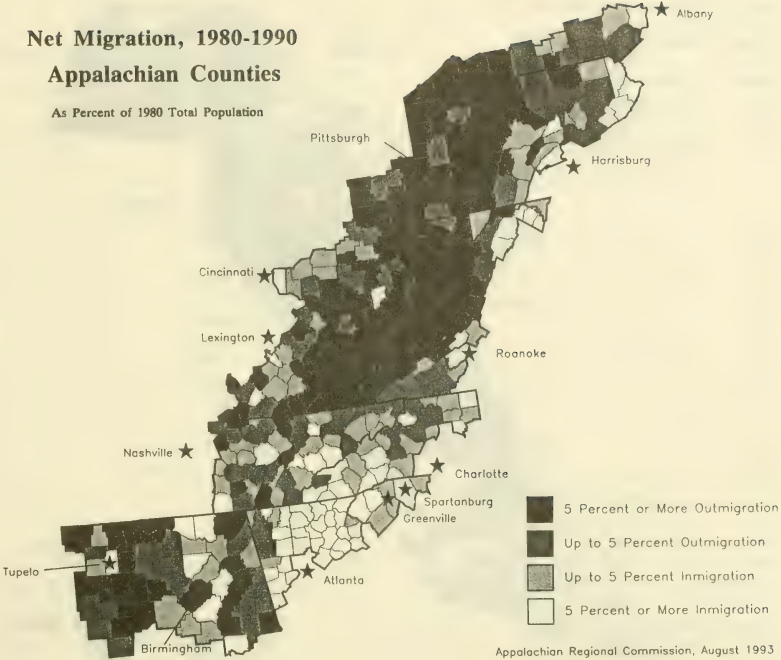
Compared to U.S. Average of 13.1 Percent



Appalachian Regional Commission, August 1993

Net Migration, 1980-1990
Appalachian Counties

As Percent of 1980 Total Population


Albany
Harrisburg
Pittsburgh
Cincinnati
Lexington
Roanoke
Nashville
Charlotte
Spartanburg
Greenville
Atlanta
Tupelo
Birmingham
5 Percent or More Outmigration
Up to 5 Percent Outmigration
Up to 5 Percent Inmigration
5 Percent or More Inmigration

Appalachian Regional Commission, August 1993

V. APPALACHIAN REGIONAL DEVELOPMENT PROGRAM

OVERVIEW

ARC's Federal-State partnership provides exceptional flexibility to the States in addressing their economic development needs. The Commission's record of accomplishment in improving economic conditions throughout the Region shows that this is the best approach for addressing Appalachia's divergent economic needs. ARC has funded an extremely wide range of economic development activities, such as vocational training, day care centers, business incubators, water and sewer improvements, as well as highways. Both the highway and non-highway programs have had critical roles in the economic development process, and both categories are continued in the FY 1997 budget request. ARC's strategic plan recognizes the importance of highway and non-highway economic development activities. The construction of highways is a necessary but not sufficient condition for economic development of the Region. Related infrastructure, business and human resources investments are also required to create self-sustaining economic development. This budget requests $83.180 million for highway programs and $83.175 million for non-highway economic development activities, reflecting a balanced regional development program.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM

	(thousands of dollars)			
	1995 Actual	1996 Estimate	1997 Request	Increase or Decrease
Appropriation	189,345	109,000	83,180	-25,820
Obligations	136,994	200,396	83,180	-117,216

Budget Request

The amount of $83.180 million is requested to provide for continued progress on the Appalachian Development Highway System (ADHS). The funds for 1997 would be used to assist the Appalachian States in contracting for construction, right-of-way purchase, and engineering of a portion of some 732 miles remaining for construction as of September 30, 1995. At that date, 2,298 (76%) of the 3,025 miles authorized by the Congress for the system had been contracted for construction, of which 2,177 (72%) miles had been completed and opened to traffic. With the requested funds, it is expected that by the close of 1997, a total of 2,330 miles (77%) will have been placed under construction, of which 2,220 will be complete (73%).

As part of the strategic plan, **ARC's objective is to have 90% of the ADHS open to traffic in the next decade**. This will obviously require use of resources from state, federal and local sources to the maximum extent possible. ARC will also identify for completion critical highway interchanges and priority miles. Highway-related economic development activities will focus on providing incentives to States to plan appropriate job-creation activities around corridors and corridor interchanges.

During 1996, ARC will be conducting a detailed analysis of the completion status of uncompleted segments in the 26 corridor ADHS. The system has 848 miles in various stages of development. Most of this mileage is in short segments of 10-30 miles sandwiched between completed sections. It is estimated that between 150-200 cost sections (subdivisions of each corridor) require examination. This is the first step in the Commission's efforts to prioritize segments for completion during 1997 and future years.

The current estimate of the cost to complete the ADHS was developed in 1992 (see page 25). The Commission will be updating this estimate during 1996 by applying indices to account for the effects of construction cost inflation. The Commission is also planning to initiate a new "cost to complete" study during FY 1997, which will take into account necessary changes in alignment and other specifications, engineering considerations, construction costs, and other factors.

Six corridors are currently completed. They are "I" in Kentucky from Whitesburg to Winchester (126.2 miles); "L" in West Virginia from Beckley to Sutton (West Virginia is constructing four- lane sections initially completed as two lanes) (69.7 miles); "R" in Kentucky from Compton to Prestonsburg (Kentucky Mountain Parkway, an existing route); "B-1" from Greenup, Kentucky to Portsmouth, Ohio (12.6 miles); "P" from Mackeyville to Milton, Pennsylvania (60 miles); and, "E" from Morgantown, West Virginia to Hancock, Maryland (112.4 miles).

Currently anticipated near term projects would be to complete Corridor "G" from Pikeville, Kentucky to Charleston, West Virginia (106.8 miles); Corridor "W" from Greenville, South Carolina to Hendersonville, North Carolina (39.7 miles); and, Corridor "X" in Alabama and Mississippi (109.1 miles). In addition, Corridor "D" from Cincinnati, Ohio to Bridgeport, West Virginia (251.6 miles) would be 94 percent complete and Corridor "T" from Erie, Pennsylvania to Binghamton, New York (253.8 miles) would be about 96 percent complete.

Although Corridor "B" would be only 84 percent complete from its termini at Asheville, North Carolina to Portsmouth, Ohio (302 miles), those portions of Corridor "B" in Kentucky, Tennessee, and Virginia would be complete. The North Carolina sections of the corridor will not be completed until 1999.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) affects a number of the Appalachian Highway Corridors. A majority of the corridor mileage (both completed and uncompleted) has been designated as part of the National Highway System (NHS). An estimated 256 miles (8.5 percent) of the ADHS are not on this planned national system. Those miles which are on the NHS qualify for regular highway funds. Several States have already started to combine funding from NHS and ADHS to implement corridor construction.

ISTEA also provided funding to specific ADHS corridors under various demonstration and special sections of the Act. For the six-year funding cycle ending with FY 1997, $608.5 million has been designated for use on the ADHS. Portions of an additional $270 million may also be used on corridor mileage. These funds are designated for multi-state routes or corridors, which might contain some ADHS miles. The exact portion for ADHS miles is not identified. In addition, Section 1069(Y) of ISTEA states that "there is authorized to be appropriated such sums as may be necessary for projects involving construction of, and improvements to, corridors of the Appalachian Development Highway System." Projects to improve and upgrade Route 219 from Springville, New York, to the Pennsylvania border were also made eligible for funding under the Appalachian Development Highway program. However, no additional mileage was authorized in ISTEA to accommodate this last addition.

Reauthorization of ISTEA in 1997 could affect funding for the remainder of the ADHS.

Budget and Program Comparative Data

The development highway program includes three sub-programs, Development Highways, Access Roads, and Administration and Special Planning, with funding as follows:

	Cumulative Obligations (millions of dollars)		
	Thru 1995 Actual	Thru 1996 Estimate	Thru 1997 Request
Development Highways	3,993.3	4,098.7	4,178.4
Access Roads	217.7	219.7	221.7
Administration & Special Planning	39.3	40.9	42.4
Total	4,250.3	4,359.3	4,442.5

	Annual Obligation Amounts (thousands of dollars)			
	1995 Actual	1996 Estimate	1997 Estimate	Increase or Decrease
Development Highways	133,429	196,796	79,680	-117,116
Access Roads	2,101	2,000	2,000	0
Administration & Special Planning	1,464	1,600	1,500	-100
Subtotal, Net	136,994	200,396	83,180	-117,216
From prior year balance	+52,351	-91,396	--	+91,396
Appropriation	189,345	109,000	83,180	-25,820

Development Highways. Physical accomplishments for highway programs are generally measured by miles completed or placed under construction. The program has placed under construction or partial construction 2,298 of the 3,025 mile development corridor system. The mileage summary by State is shown at the end of this section. As with many other programs, the construction cost per mile has increased sharply since the program was initially authorized due to inflation and revised standards. An evaluation of the economic impact of the highway program appears below.

The proposed funding would finance a program which, by September 30, 1997 is anticipated to result in a total of 2,330 development highway miles and 925 access road miles either contracted for construction or already completed. Adding the additional mileage for which right-of-way acquisition will have been obligated, there will be at the close of FY 1997 an estimated total of 2,500 development highway miles with obligation commitments. The following table summarizes the current and projected status of highway mileage construction as compared with the total mileage now authorized under the Appalachian Act.

Appalachian Development Highway System
Status as of September 30, 1995

	Miles by Category	Cumulative Miles*	%	Miles Est. Sept. 1996*	Miles Est. Sept. 1997*
Construction completed	2,177.6	2,177.6	72.0	2,200.0	2,220.0
Construction underway	155.2	2,298.2	76.0	2,320.0	2,330.0
ROW in process	143.5	2,453.2	81.1	2,475.0	2,500.0
Location Study /Design begun	549.4	2,638.6	87.2	2,670.0	2,700.0
Total eligible for construction		3,025.0	100.0	3,025.0	3,025.0
Total authorized by Congress		3,025.0		3,025.0	3,025.0

*Includes mileage funded under other Federal programs.

Development Highway Program Background. One of the major factors which contributed to Appalachia's relative economic stagnation was its isolation. This isolation resulted primarily from the ifficulties of transport in a rugged region. Roads were expensive to build and, as a result, roads ere built to "follow the topography" in order to minimize costs. Consequently, major national ransportation arteries were built to bypass Appalachia rather than go through it. Thus, what evolved n Appalachia was a system of narrow winding roads following stream valleys and troughs between he mountains. The resulting system, characterized by low travel speeds, long travel distances due o the winding roadway pattern, unsafe roads built to poor design standards, short sight distances, nd extremely high construction costs, markedly discouraged commerce and industrial development. With the exception of some communities located on major east-west routes, most Appalachian communities were not able to compete for large employers due to poor access to national markets, nd because commutation was so difficult that the size of available labor pools was severely limited y the transport system.

n response to these conditions, Congress in 1965 authorized construction of the Appalachian Development Highway System to connect major Federal highway arteries and open areas of dense opulation ignored by interstate routes. The Act authorized "construction of an Appalachian Development Highway System serving the Appalachian Region which, in conjunction with the nterstate system and other federal-aid-highways in the Region, will provide a highway system which will open up an area or areas with a developmental potential where commerce and communication ave been inhibited by lack of adequate access."

Construction of the Appalachian system, complementary to the interstate routes previously authorized y Congress, is a key component to accelerated economic growth in the Region. The designated ystem serves to encourage the location of new industrial and commercial enterprises in the Region. Of equal significance is the fact that many of these highways facilitate commutation from rural but eavily populated areas to jobs in the major communities and cities, as well as providing improved ocal access to community services such as schools, hospitals, and retail areas.

The highway allocations to the Appalachian States are based on the following procedures:

- After appropriations are made, ARC makes an annual allocation at the beginning of each fiscal year. Each State's allocation consists of two portions: a base allocation consisting of 70 percent of the total; and a supplemental allocation consisting of the remaining 30 percent.
- To assure continued progress on the highway system, States able to utilize more than their total allocation are permitted to do so if other States are not able to use all of their allocation.

The system has worked well in encouraging a fast pace of construction among the States. Additionally, highway construction prefinanced by the States, which was nonexistent in 1976, rose to $117 million in 1979, $274 million in 1988, $211 million in 1991, $219 million at the close of 1993, and $226 million at the close of 1995. This obviously indicates the high priority the states place on completing the highway system. States can either "pay themselves back" (at the rate of 70%) for their prefinancing from their annual highway allocations, or use their highway allocations to continue progress on the system.

The following table shows estimated cumulative authorizations and allocations through 1995, 1996, and 1997:

Authorization and Allocations
(millions of dollars)

	Thru 1995 Estimate	Thru 1996 Estimate	Thru 1997 Request
Cumulative Authorization	4,596.9	4,705.9	4,789.0
Less Authorizations Lapsing	-252.4	-252.4	-252.4
Appropriations:			
Cumulative	4,344.5	4,453.5	4,536.6
Current Year	189.3	109.0	83.1
Allocations by Program: (Cumulative)			
Development Highways	4,077.4	4,182.8	4,259.6
Access Roads	226.7	228.7	230.7
Administration & Special Planning	40.4	42.0	43.5
TOTAL	4,344.5	4,453.5	4,533.8

During 1992, the Commission approved the preparation of a revised cost estimate for completing all segments of the Appalachian Development Highway System. Individual cost estimates were prepared by the State highway agencies based on the Federal Highway Administration's Manual of Procedures and Criteria, consistent with the format of prior cost estimates prepared in 1966, 1972, 1976, 1979, and 1987. The completed cost estimates were adopted by the Commission in February 1993, and are the basis for a revised allocation formula starting in FY 1994.

Based on funding through 1996, current unobligated balances, and assuming repayment of State prefinancing, the estimated Federal cost to complete the system is approximately $4.5 billion. Inflation since 1992, and cost changes due to alignment changes would affect this estimate. With Commission resources alone, at the current level of appropriations, the system could not be completed in the foreseeable future.

Development Highway Program Impact and Evaluation. The record now makes clear the critical importance of highways to economic development of the Region. Even though the entire system is not yet complete, the Appalachian Development Highway System impacts are already considerable:

- Industries and businesses have grown along the highways;
- Enterprises not directly along the highways were strengthened by the dramatic opening up of the Region by the highway system;
- The Appalachian Development Highway System is a vital link in moving Appalachian coal and other products to domestic and foreign markets; and,
- The costs and difficulty of extending health, education, and other services in the Region were reduced by the highways.

Although the economic benefits of transportation improvements have been documented by many studies, researchers have obtained the following results for studies of the Appalachian Region:

- During 1981, ARC surveyed the 13 Appalachian States and the 69 Local Development Districts in Appalachia to assess the impact of the highway system. These surveys provided the most accurate count ever taken of the industries located on or near the Appalachian Development Highway System corridors. The surveys showed that since 1965, when the corridor system was first announced, 182,700 jobs had been created in 801 manufacturing plants with 50 or more employees within 30 minutes of the corridors. Added to this are an estimated 32,300 jobs in smaller plants for a total of 215,000 jobs. Standard projections of one service job created for each manufacturing job suggest that 215,000 jobs in retail trade, commercial establishments, and various services have been opened up along the corridors, for a total of more than 430,000 jobs.

- A 1987 survey, using a different approach, showed that between 1980 and 1986, 560,000 jobs were created in the Appalachian counties with a major highway compared with 134,000 jobs created in counties without a major highway. The number of expanding firms was also greatest (9,800) in counties with a major highway compared with the number (3,000) in counties without a major highway.

- A recent study conducted by a professor at the University of North Carolina found a strong correlation between income growth and the presence of improved highways between 1965 and 1990 in Southern and Northern Appalachia. Central Appalachia had a much weaker correlation between income growth and improved highways. This highlights the need for other related investments in the poorest areas, and indicates a continuing need for ARC's distressed counties program.

Access Roads. The Commission's access road program has been an essential ingredient in efforts to accelerate economic development in the Region. Unlike the development highway program, which is an entire system planned in advance, the access road program consists of individual projects designed to meet specific local needs. These projects are submitted separately by the States and individually approved by the Commission. Access road projects must have a demonstrable economic relevance by providing access to essential economic activities, such as to an industrial site or industrial park. Thus, job creation and retention are critical aspects of this program. They are normally two-lane facilities -- less than one or two miles or a bridge -- with Federal assistance of up to 80 percent of total cost.

The Act presently authorizes up to 1,400 miles of access roads. About 1,030 miles are expected to be approved through FY 1997 with about $2 million anticipated for obligation in FY 1997. The last general allocation for the program was made in FY 1987. States may currently shift a limited portion of their Development Highway allocation into the access road program (as well as into the area development program). For example, as of September 30, 1995, States had transferred $1.0 million of FY 1995 highway funds into access roads, and $7.9 million into area development.

To meet requirements in several States for special access roads not included in the current access road allocations, the Commission authorized a limited utilization of development highway allocations for special development access roads to be individually approved by the Commission. To be eligible for approval, a development access road has to have a high regional priority (such as the facilitation of energy development or the provision of service to multi-state or other development projects of high regional significance) and possess significant prospects for providing high "benefit-cost" yields in terms of new job opportunities. The Commission also authorized States needing additional authorization to receive portions of authorizations unused by other States. States receiving authorization must fund the projects from their own development highway allocations. As projects are approved, the allocations are transferred to the access road program for program accounting.

After the individual access road projects are approved by the Commission, state and local government sponsors are authorized to proceed with the work, and the funds are obligated by FHWA. Since design and right-of-way acquisition precede advertising for bids for actual construction, there is a considerable time lag before funds are obligated. Through September 30, 1995, 488 projects with a total cost of $351.5 million, including ARC assistance of $227.3 million, had been approved. Of this amount, $217.7 million had been obligated. Some 891 miles of access road projects were completed, and an additional 19 miles were underway. See the following table:

Access Road Approvals and Obligations
(thousands of dollars)

	Thru 1995 Actual	Thru 1996 Estimate	Thru 1997 Request
Approved Projects	227,317	229,000	230,000
Obligated Projects	217,738	219,738	221,738
Annual Obligations	2,101	2,000	2,000

Administrative and Other Costs. Administration of the program is primarily through the Federal Highway Administration, which handles the details of the construction program. For this purpose, the program finances a staff of 17 persons, primarily in the field offices of the Federal Highway Administration. During FY 1997, administrative costs are estimated at $1.5 million of which $1.4 million provides for project administration of the program at the Federal Highway Administration and $100,000 for staff and computer costs at ARC.

The attached tables contain additional data for the Highway program.

APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM
MILEAGE SUMMARY

CUMULATIVE STATUS AS OF SEPTEMBER 30, 1995

State	Total Corridor	Eligible for Construction	Design completed or underway	ROW For Construction completed or underway	Construction completed/ underway*	Construction completed**
AL	244.4	232.5	232.4	215.3	161.4	113.8
GA	135.0	129.3	101.5	101.5	101.5	101.5
KY	579.9	431.7	416.0	389.5	372.2	355.9
MD	86.8	83.2	82.0	82.0	77.9	77.9
MS	119.8	116.8	116.8	115.2	82.8	73.5
NY	255.3	219.5	206.8	204.1	204.1	201.3
NC	206.3	203.4	175.4	167.9	158.8	155.2
OH	289.0	201.1	178.4	168.4	153.1	146.0
PA	510.5	454.4	305.9	241.6	233.7	217.8
SC	30.7	22.9	22.9	16.8	16.2	16.2
TN	338.4	328.0	311.7	288.0	276.6	268.1
VA	202.0	191.3	176.9	159.2	156.2	150.7
WV	424.5	411.0	311.9	303.7	303.7	299.7
TOTAL	3,422.6	3,025.0	2,638.6	2,453.2	2,298.2	2,177.6
Estimated Status:***						
September 30, 1996			2,670.0	2,475.0	2,320.0	2,200.0
September 30, 1997			2,700.0	2,500.0	2,330.0	2,220.0

* Includes 87 miles of construction prefinanced by States.

** Includes completion of partially constructed segments, e.g., two lanes paved. Of the total completed mileage 2,126 miles have been opened to traffic.

*** Includes miles funded under other Federal programs.

APPALACHIAN HIGHWAY PROGRAM OBLIGATION CAPABILITIES
State by State Summary
(thousands of dollars)

Development Highways	Obligated thru 1995	Est. State Capabilities thru 1996	Estimated Obligations thru 1996	Estimated Obligations thru 1997
Alabama	307,968	337,608	317,310	324,539
Georgia	118,405	151,516	123,079	127,286
Kentucky	578,269	666,465	590,550	599,796
Maryland	149,604	183,194	152,350	154,441
Mississippi	150,009	164,758	152,821	155,059
New York	304,128	321,615	308,884	312,584
North Carolina	187,281	198,855	196,490	203,474
Ohio	148,141	179,917	155,834	161,699
Pennsylvania	587,436	607,434	604,253	617,558
South Carolina	20,076	29,484	21,358	22,493
Tennessee	392,671	504,279	409,021	421,191
Virginia	153,466	155,676	157,669	160,863
West Virginia	895,236	1,147,353	984,593	994,909
Adjustments and Slippage	587	-	-	-
Subtotal	3,993,277	4,648,154	4,174,212	4,255,892
Access Roads	217,738	219,738	219,738	221,738
FHWA - Admin. - Misc.	39,255	40,855	40,855	42,355
TOTAL	4,250,270	4,908,747	4,434,805	4,519,985
Appropriations Available	4,341,665	4,450,665	4,450,665	4,533,845
Amount Prefinanced	226,075 *	258,336	258,336	240,000
Unobligated Balances	91,396	---	---	—

*Prefinanced Amounts by State	
Georgia	33,111
Kentucky	70,596
Mississippi	5,347
New York	17,487
Tennessee	97,324
Virginia	2,210
	226,075

AREA DEVELOPMENT PROGRAM

Area Development Request
(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Increase or Decrease
Appropriation	74,193	52,055	77,875	+25,820
Obligations	101,962	88,571	77,875	-10,696

The budget request for the area development program for FY 1997 is $77.875 million, an increase of $25.82 million from the amount requested for FY 1996. The requested funding would be used in a wide variety of projects such as those to encourage physical development (e.g., water and sewer systems, industrial parks, low income housing, and local government services), human development (e.g., training, vocational education, leadership, and health), and business development (e.g., business incubators, entrepreneurial training, revolving loans, and export promotion). As discussed earlier, the spending in each economic development category is determined by the Appalachian States' economic development plans and project submissions, and Commission decisions. **Under this partnership, the Federal government does not specify spending in each area development category.** The funds requested would also provide $680 thousand for Federal agency administration, the same as was requested for FY 1996.

The completion of the strategic plan will have a major impact on the projects which are submitted to the Commission. Governors' will submit projects which advance ARC's goals and mission based on their determination of the best strategies to accomplish this. Since the States determine the projects submitted for funding, it is difficult for the Commission to set performance measures and benchmarks. ARC is currently in the process of developing benchmarks and performance measures for the highway program, area development program, and the strategic regional initiatives. The Federal Co-Chairman anticipates that this information will be used by the States and the Commission to guide project submissions and approvals.

In prior budget submissions, the Federal Co-Chairman has provided funding estimates by program type as recommendations to the States, and information to OMB and Congress. To avoid possible misinterpretation of the estimates, this budget submission discontinues that practice.

FY 1997 AREA DEVELOPMENT PROGRAM OVERVIEW

Area development funding is used to help the regional economy become more competitive by putting in place the building blocks of self-sustaining economic development. It also will assist the poorest communities in providing basic services and a decent quality of life for their residents. Experience has shown that the construction of highways is necessary, but not sufficient to encourage economic development throughout the Region. Area development emphasis is placed on three sets of complementary activities: (1) *Physical development* includes community infrastructure, such as water, sewer, access roads, and housing, and improvement in delivery of state and local government services. (2) *Human development* includes education, job training, child care, health, leadership and civic development, community institution building, and community service. (3) *Business development* provides support for programs of management assistance, technology transfer, market development, export promotion, business networking, and financing.

Request by Program Type
(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Increase or Decrease
Area Development*	73,498	51,375	77,195	+25,820
Administration	695	680	680	-0-
Total	74,193	52,055	77,875	+25,820

*Actual Area Development Spending by Category depends on State submissions and Commission policy.

Included within these broad area development categories are the Commission's regional initiatives, which are targeted programs that address new opportunities in Appalachia. The Commission anticipates that emphasis in FY 1997 will again be placed on three major initiatives which are crucial to development of the Region and which are funded at $5 million in the FY 1996 program: (1) internationalization of the economy and its implications for Appalachia; (2) telecommunications; and, (3) local leadership and civic infrastructure. The internationalization initiative focuses on opportunities to increase exporting from small and medium sized businesses in rural Appalachia. Telecommunications infrastructure is critical because it cuts across all areas of development and can be used to link rural areas to world markets. The leadership and civic infrastructure initiative will attempt to build the capacity of communities to work together to solve local problems. The Federal Co-Chairman anticipates that a minimum of $6 million will be allocated to these initiatives in 1997. In addition to Commission support for these initiatives, the Appalachian States are also encouraged to use portions of their area development allocations in these areas. **Section III includes a detailed discussion of these regional initiatives and their goals, as adopted by the Commission.** Funding for regional initiatives comes from within the total area development budget.

The Federal Co-Chairman also anticipates that a fourth regional initiative in "building entrepreneurial communities" will be fully developed during 1996 and funded in 1997.

Special efforts are made to leverage public and private funding for Commission-supported programs, and, where possible, to use communities in the Region to pilot new State and national initiatives. Recently, Commission staff worked with interagency committees and local sponsors on initiatives such as Empowerment Zones/Enterprise Communities, the National Rural Development Initiative and State Rural Development Councils. Staff has recently worked on interagency and State task groups on Farm Bill policy, rural credit, tourism, transportation, small business, leadership, strategic planning, and public finance. The Commission has been represented at numerous meetings with public interest groups, community-based organizations, foundations, private citizens, and businesses on issues of concern to Appalachian residents. These activities have resulted in the identification of additional resources or opportunities for communities and residents of Appalachia. At the same time, other organizations and agencies benefit from the applicable experiences and research activities of the ARC.

As detailed in Section III, we have completed our comprehensive strategic planning effort, which has included wide-ranging public input, and which is defining ARC's future regional economic development efforts.

The overall goals of ARC's regional development program are:

- **Appalachian residents will have the skills and knowledge necessary to compete in the world economy in the 21st century.**
- **Appalachian communities will have the physical infrastructure necessary for self-sustaining economic development and improved quality of life.**
- **The people of Appalachia will have the vision and capacity to mobilize and work together for sustained economic progress and improvement of their communities.**
- **Appalachian residents will have access to financial and technical resources to help build dynamic and self-sustaining local economies.**
- **Appalachian residents will have access to affordable, quality health care.**

Distressed Counties. The Commission provides special assistance to help the Region's most distressed counties with a special annual allocation that can only be used in the States' designated counties. This special allocation, 30 percent of area development funds available, can be supplemented from a State's regular area development allocation. Additionally, designation permits funding by the Commission of up to 80 percent of eligible project costs rather than 50 percent, as for projects in non-designated counties. A list of counties currently designated as distressed in FY 1995 is provided at the end of this chapter, along with a map showing the location of distressed counties. Further discussion of the distressed counties program appears in Section III.

Administration by Other Agencies. Since many of the individual projects will be administered by other Federal agencies, an amount of $680,000 is requested for their administrative expenses, the same as the amount requested for FY 1996.

Investment Areas for FY 1997

1. PHYSICAL DEVELOPMENT

The goal of ARC's Physical development activities is for **Appalachian communities to have the physical infrastructure necessary for self-sustaining economic development and improved quality of life**. These projects are characterized by grass-roots support and are locally driven by the community's leadership. Many leverage private investment and link families to new work experiences. ARC-assisted projects must either directly relate to job creation or retention, or be essential to the implementation of an adopted state or area wide strategic plan. Exceptions are made for basic services in designated distressed counties.

The funds requested for FY 1997 are expected to be used for the following types of projects:

Water and Wastewater Systems:

Water and wastewater system projects will be targeted to distressed counties for basic residential and commercial infrastructure and in other counties to support small business and industrial or commercial development projects with direct job creation or retention. Studies by the Economic Research Service at USDA indicate that much of the Region has a significantly higher percent of housing with inadequate plumbing than national levels, despite the dramatic progress that has been made. Whenever possible, ARC funding will be used to complement funding provided by other Federal and state programs, particularly USDA's "Water 2000" initiative, and EPA's State revolving loan funds for water and wastewater facilities. **ARC's objective is that, within the next decade, all Appalachian communities will have access to safe drinking water and sanitary sewer and waste disposal systems.**

Commercial and Industrial Infrastructure:

Without infrastructure and site development, rural Appalachian communities miss many opportunities to attract and develop industry and business. Projects selected for ARC funding must lead to the immediate creation or retention of jobs in the local work force or be identified in an adopted State or multi-jurisdictional strategic plan. Projects may include industrial site development and renovation, incubator facilities, and downtown revitalization, which are essential to development of diversified and competitive economies. **ARC's objective is that, within the next decade, there will be a developed and active industrial site, business park, or business incubator within a reasonable commute of all Appalachians.**

Housing:

Initially, the Commission helped member States establish housing finance agencies. The housing program now provides grants for site development (the costs of which can be excessive due to topography and distance from water and sewer lines) as well as rehabilitation, weatherization, indoor plumbing facilities, and special finance and counseling programs. Grantees of the ARC housing program have provided safe and affordable housing in some of the most impoverished Appalachian areas. ARC funds are used to match other Federal, state and local housing funds. Under the strategic plan, **the long-term goal is to stimulate production and rehabilitation of at least 5,000 units of low- or moderate income housing in the Region's most distressed counties.**

Recent Examples of Physical Infrastructure Projects:

A $300,000 grant for extension of 30 miles of water lines to serve 242 rural residential customers in the area of Barnes Mountain and Wagersville, Estill County, Kentucky, in which nearly 70 percent of the samples taken from existing wells tested positive for coliform organisms, and residents were forced to haul water long distances.

A $500,000 grant for a new 14-mile water line will provide a clean, dependable supply of drinking water to 460 residents of the Buchanshire-Whitewood area of Buchanan County in southwestern Virginia. These residents have traditionally drawn their water from springs and wells. Coal mining in the area, along with several years of drought, has seriously depleted and polluted groundwater sources, forcing families to buy bottled water or to haul water from distant locations.

A $200,000 grant for expansion of the Spruce Pine Wastewater Treatment Plant, Mitchell County, North Carolina, will allow four major area employers to expand and create 121 new jobs.

An ARC grant of $350,000 along with $1.05 million in State and local funds to construct a 352-foot bridge over the Jackson River to serve the 300-acre Alleghany Regional Commerce Center in Low Moor, Virginia. From 226-366 jobs are expected to be immediately created. Additional job creation is anticipated, due to companies expressing an interest in locating at the Center once the bridge is completed.

A $625,000 grant to the West Virginia High-Technology Consortium for construction of a 35,000 square foot Innovation and Incubator Center, Marion County, West Virginia, which will provide technical, educational, and promotional assistance to more than sixty high-technology companies and create more than 300 new high-wage jobs in the next three to five years and 20-30 high technology jobs.

The Caney Creek Housing project in Knott County, Kentucky, which will correct major housing problems in 24 structures which are dilapidated, not connected to potable water, and are not connected to the wastewater system. The project will eliminate some of the worst housing problems in Eastern Kentucky where the homes are in extremely deteriorated condition and the area is severely blighted.

A multi-unit apartment housing project will assure adequate housing for low- and moderate-income elderly citizens in Garrett County, Maryland. The ARC grant of $220,197 will be used to offset the cost of site development due to the mountainous terrain of Western Maryland.

2. BUSINESS DEVELOPMENT

For too long Appalachia was beset by weaknesses in the structure of its local economies. One, too many areas were overly dependent on single industries which were often subject to "boom or bust" cycles (like coal). Two, and closely related, was the fact that the Appalachian economy was insufficiently diversified and dynamic. And, three, in many communities the investments and resources were not locally controlled; rather, they were controlled by outside decision-makers in a pattern common to branch plant economies.

The goal of the strategic plan is designed to attack this historic problem: **Appalachian residents will have access to financial and technical resources to help build dynamic and self-sustaining local economies**. This reflects the theme of the Federal Co-Chairman, which is to build entrepreneurial communities and empower enterprising people. The strategic plan aspires to move Appalachia beyond the "external investment model" to one which builds strengths from within. Diversified, dynamic, and entrepreneurial economies will become the objective rather than success in the "buffalo hunt" of branch plant recruitment.

The specific objectives for this goal are as follows:

- **The rate of Appalachian business start-ups in every state will at least equal the national average.**
- **The percentage of small and medium-sized Appalachian firms engaged in international trade in every state will at least equal the national average.**
- **The value-added component of the jobs in every Appalachian state will equal or exceed the national average.**
- **Appalachian counties historically dependent on low-value-added industries will have begun to restructure their local economies in order to provide more opportunities for high-value, high-wage employment.**

The major funding strategies for projects fall into several categories:

Capital Requirements for Small Business Start-Ups:

The Commission continues to make grants to State revolving loan funds (RLFs). Ten States currently have RLF grantees. Since 1978, $43 million has leveraged $330 million in loans to 822 borrowers. The average loan is about $50,000. During 1996-1997, it is expected that an additional $2.7 million will be made available for State RLFs.

Technical Assistance for Small Business Start-Ups:

Enterprise start-ups are supported by projects which improve the rate of small business formation and success. While increased capital availability is an element of a potential regional strategy, there is evidence that management problems of small businesses are often disguised as capital problems. Accordingly, this initiative will focus on ways to provide management technical assistance to small businesses in addition to seed capital. ARC's objective is that **the rate of Appalachian business start-ups in every state will at least equal the national average**.

Technology Transfer for Modernization of Existing Industry and Small Business Start-Ups:

A key element in creating dynamic local economies is to capture technology and innovation which are occurring locally in community colleges, regional universities, Federal labs, and other institutions. The Commission will be urging states to submit projects which will create local systems of technology transfer to (1) help modernize the existing business base, (2) help existing businesses understand and meet global standards of competition and, (3) match innovation with local entrepreneurs who can commercialize it in small business start-ups.

Identification of Business Clusters and Activation of Networks:

The experience of the Commission to date highlights the importance of understanding not only the individual industrial sectors and their spatial distribution across the Region, but also how firms in specific sectors are linked in clusters or value-added chains, whose members can benefit jointly from new markets, products, and technology, thus becoming more competitive. Therefore, the Commission has adopted a strategy of **supporting the development of industry networks and trade organizations that promote interfirm collaboration, resource sharing, and the coordination of business-assistance services**.

To develop a better understanding of the issue, ARC has joined the Aspen Institute, the German Marshall Fund of the U.S., and the U.S. Department of Agriculture in convening a group of international development experts and practitioners to review industrial development clusters. According to preliminary findings, rural areas — particularly Appalachia — must overcome geographic isolation in order to capture the increased economic activity resulting from clusters. The public sector can play a role by understanding cluster interaction, creating technical assistance hubs, and improving the flow of information and ideas between existing companies.

Globalization of the Appalachian Economy:

In order for Appalachian businesses to fully participate in the global economy, ARC is pursuing a region-wide initiative developed and implemented by the States in FY 1995 to address the special problems of rural Appalachian industries in accessing foreign markets and benefiting from the opportunities made possible by the increased internationalization of the economy. The objective, as adopted in ARC's strategic plan is that **the percentage of small and medium-sized Appalachian firms engaged in international trade in every state will at least equal the national average**.

Specific projects may include: development of programs to build export awareness among rural businesses; coordination of technical and financial services needed for these businesses to become players in the international market; training firms that are new to exporting; promoting the work of the newly formed Appalachian Export Trade Advisory Council (ETAC); and similar activities.

In December 1995, ETAC convened a meeting with more than a dozen industrial modernization officials from throughout the Appalachian Region. The meeting was an historic gathering of two key components of economic development policy. The purpose was to determine if the knowledge of the industrial modernization community on the formation of industrial clusters could aid Appalachia's small and medium-sized businesses in increasing exporting. The participants thought the crafting of cluster strategies could significantly contribute to economic development initiatives throughout the Region.

Strategic Planning at State and Local Level:

ARC provides strategic planning assistance to its LDDs, and state and local government entities. This includes training in how to create and implement state and local industrial and commercial development strategic plans. These plans should be community-based, multifaceted, and sustainable over time. The objective of these activities is that **Appalachian counties historically dependent on low-value-added industries will have begun to restructure their local economies in order to provide more opportunities for high-value, high-wage employment**.

Capitalizing on Tourism:

The Commission continues to explore specific opportunities for tourism enterprise development along Appalachian Highway Corridors, such as Corridor L in West Virginia. The Commission also would continue to pursue multi-state marketing opportunities with State tourism offices and private sector tourism providers. In all of its tourism related activities, the Commission seeks to forge closer ties between Federal, State and local tourism interests and economic development practitioners. Under ARC's strategic plan, the strategy adopted is to **support leadership, marketing, and planning efforts to enhance local strategies for tourism development**.

Recent Examples of Business Development projects:

> **A $112,400 grant to the assist in the development of a network of export technical assistance providers** which will serve 11 counties in Appalachian Ohio. This project will build upon the strengths of four export assistance organizations to meet the growing needs of small and medium size manufacturers and service industries in accessing the international market more effectively and efficiently.
>
> **Manufacturers' marketing network**. An ARC grant provides support for expansion of a manufacturer's marketing network for all seven Pennsylvania Local Development Districts (LDDs). This initiative creates a computer-based program designed to match buyers with potential suppliers of products and services. The original program operates in an 11-county

LDD where 500 actively enrolled companies buy and sell nearly 12,000 products and services annually. In one 18-month period, the program assisted 200 companies requesting more than 1,000 products and services and generated more than $1.6 million in purchases.

The Ohio Valley Plastics Partnership is a tri-state demonstration project designed to enhance plastic manufacturing competitiveness for businesses in five Appalachian LDDs in Ohio, West Virginia, and Kentucky. Project services are emphasized in the areas of technology transfer, product development, process technology and organization, management, and labor relations.

The Corridor L tourism project links communities along the corridor for the purpose of tourism-based job creation. The linked communities work together to develop local leadership, regional organizations, and marketing strategies that support tourism and job creation.

A project in Virginia supports microenterprise programs throughout Appalachian Virginia through capital, training, technical assistance, and follow-up support. While access to capital can be a barrier to small business start-up and failure for women, minorities, and low-income individuals, lack of experience, information and support can be even more detrimental to these groups' business success.

A $50,000 seed grant to the Southeastern Regional Alliance supports creation of a regional technical resource network. The ARC grant is being used to develop plans for the creation of multi-state telecommunications networks that have a wide array of public and private applications.

3. HUMAN DEVELOPMENT

In FY 1997, the Commission will continue to invest in projects to increase the capacity of Appalachian communities to build strong sustainable communities and to maximize their own human resources. The goal of human development activities is that **Appalachian residents will have the skills and knowledge necessary to compete in the world economy of the 21st century**. The Commission supports a variety of human development programs:

- workforce training
- leadership development and institution building
- telecommunications
- basic and adult education
- entrepreneurial education
- health

Workforce Training:

Success in today's technically-oriented job market is dependent upon an individual's skills and the ability to adapt to a constantly changing work environment. Workforce training helps to encourage and strengthen the economic development of the Region. As companies throughout Appalachia develop or introduce new equipment/technologies into their organizations, workers must be trained to adapt their skills and knowledge to meet these new demands. By investing in Appalachia's most valuable resource, her people, ARC is ensuring a more prosperous economic future for the Region.

The objective of workforce training programs is to provide the current and future workforce of Appalachia with the basic and technical skills necessary to compete in a global economy. ARC will continue to fund work-site literacy, technical and computer-assisted training, and to upgrade vocational education facilities and programs. ARC's strategic plan has an objective that **the percentage of Appalachian workers receiving advanced skills training will equal or exceed the national average**.

Leadership Development and Institution Building:

Building the capacity for communities and organizations to work together to solve local problems will continue to be a focus for the Commission in FY 1997. The ARC will continue to fund state and local projects that promote the development of collaborative and strategic planning, leadership development, and community capacity building. In addition to ongoing efforts in this area, the Commission in FY 1995 developed and implemented a regional initiative on Leadership and Civic Development. This regional effort focuses on efforts to develop the local expertise and resources, both human and institutional, with which communities can become self-sustaining. The objectives in this area, as adopted in the strategic plan, are that **the number of Appalachians participating in leadership development programs will double in each state,** and **Appalachian citizens will have community-based institutions devoted to citizen mobilization, strategic planning, and economic and community development**.

Telecommunications:

Preparing Appalachia's people for the Information Age is a special area of human resources development. Telecommunications is becoming increasingly critical for success in the global economy. Grant assistance will likely be approved for planning purposes, improved school curriculum through distance learning, enhanced medical services in isolated areas, and linking university professional education programs with isolated communities. Government programming and service delivery via telecommunication is becoming routine throughout the region, and business applications in export development, on-line services utilizing extensive data bases, and specialized programming are being developed by colleges and universities to meet the needs of business. ARC's objective is that **each Appalachian state will ensure adequate telecommunications access, and every county will have access to at least one public site with a two-way interactive video and data transmission capability.**

Basic and Adult Education:

The Commission will continue to emphasize education, from pre-school through adult education. The education objectives of the strategic plan are as follows: (1) **the school dropout rate in all Appalachian counties will be equal to or less than the national average;** (2) **the percentage of Appalachian adults earning GEDs will double;** and, (3) **all Appalachian counties will equal or exceed the national average for enrollment in postsecondary education**.

One of the most serious problems facing the Region is the high rate of adult illiteracy. In Central Appalachia it is estimated that nearly 45% of the population is functionally iiliterate. The Commission will continue to fund programs to increase Adult literacy that are offered by literacy councils, libraries, school systems, and other organizations.

The at-risk student population in many parts of the Region is still above the national average. Mentor programs have been shown to assist schools in reducing the drop out rates for at-risk students and in improving the chances for at-risk students to continue their education beyond high school. ARC will pilot a demonstration project(s) in mentoring, focusing on distressed counties with schools that serve high at-risk populations. The Commission will pilot projects in conjunction with existing ARC education projects.

Pilot projects to upgrade the teaching and leadership skills of Appalachia's existing educators began in FY 1995. It is anticipated that special project funding will continue in FY 1997 to enable ARC to modify and expand the exemplary summer training programs which emphasize continuing training in the areas of technology utilization, teaching and learning style practices, and leadership. The strategy adopted under ARC's strategic plan is to **support and develop teacher training programs that prepare teachers to teach in the 21st century**.

Entrepreneurial Education:

As a part of the effort to create entrepreneurial education, the ARC will encourage states and localities to retool their elementary and secondary school cirriculum toward more creative problem solving and applied knowledge. This form of education is better suited to creating entrepreneurs rather than the old "rote" method of learning which undergirded a hierarchical mass production system. In addition, states and localities will be encouraged to expand extra-curricular activities in entrepreneurship such as REAL enterprises and Junior Achievement. The objective is that **every Appalachian student will have access to a program in entrepreneurship.**

Health:

The shortage of health manpower and infant mortality reduction will continue to be ARC's primary health care focus areas in FY 1997. In addition, increased emphasis on telecommunication projects, including telemedicine projects, is anticipated. The Commission promotes the sharing of medical equipment and resources between rural health care facilities at the local level, which allows for more cost-effective provision of health care. ARC will also continue to provide technical assistance through workshops and networking and will provide advocacy services at the Federal level to ensure that Regional needs are represented. The goal of ARC's health activities is that **Appalachian residents will have access to affordable, quality health care.**

The health manpower shortage problem will continue to be alleviated by ARC's J-1Visa Waiver program. The J-1 exchange program operated by the U.S. Information Agency (USIA) allows foreign doctors who have entered the U.S. under special immigration status (the "J-1" Visa) to undertake residency training at American hospitals. U.S. immigration law requires these physicians to return to their native country after completing their residency work. This requirement can be waived upon the recommendation of a government agency in the public interest. Since 1991, the Commission has recommended J-1 waivers for physicians who agree to practice in Appalachian communities which are designated by the U.S. Public Health Service as Health Professional Shortage Areas (HPSAs). The current Federal Co-Chairman has continued the program believing that it is an effective, albeit limited solution to a severe regional problem — poor access to quality affordable health care for all Appalachians.

ARC is participating in a White House interagency group that is reviewing Federal policies affecting the J-1 exchange program. ARC's program is being viewed as a model of responsiveness and accountability and is helping inform the discussions about government-wide policies and pending immigration legislation.

Recent Examples of Human Development Projects:

Whitesville School/Business Partnership. In Allegany, New York the Whitesville School District received a $24,000 grant to support both area businesses and entrepreneurial student training. The project assists in supporting a new school program which focuses on marketing and advertising for area small businesses. Small businesses gain access to equipment and advertising expertise and students learn valuable job skills including, computerized graphic design, advertising and printing. This program represents the kind of creative models rural communities can adopt to maximize their resources and at the same time prepare youth with important entrepreneurial and job skills.

Itawamba Community's College Advanced Technology Training Center in Mississippi received a grant in FY 1994 totaling $113,000 to assist in the implementation of the college's computer integrated manufacturing enterprise. The Center, when fully operational, will address the business and industry needs in the community. Approximately, 185 adults annually enroll in industrial pre-employment training and upgrading of skills. The college serves Chickasaw, Itawamba, Lee, Monroe, and Pontotoc counties.

Tri-County Technical College, which serves Oconee, Anderson, Pickens Counties in South Carolina will receive a $75,062 grant to assist in establishing a Plastics Technology Laboratory in the College's Industrial and Engineering Division. With the recent growth in the region's plastic-based production facilities, this program will fill an urgent need to train students and current industry employees on the latest technology and theory.

A $200,000 ARC grant will leverage an additional $250,000 in State and private sector funding to implement Phase II of the Elmore County Telecommunications Project in Alabama. Phase II will expand the existing distance learning network to two hospitals, a community college, two correctional facilities, and the courthouse, making it a truly multi-sector telecommunications network. Phase I of the project interconnected five high schools in the county as the backbone for the system. The project will provide increased curriculum offerings, data interchange, video conference capabilities for the schools, the business community, and the public sector, and in-service training for the teaching staff.

Renewal Through Community-based Planning. A $25,000 grant to Rural Action in Athens, Ohio, will assist diverse groups of citizens from Vinton and Perry Counties in learning how to work cooperatively for the revitalization of their communities. The project will support local efforts to bolster leadership and community resources, which have been sorely strained due to loss of manufacturing jobs in Appalachian Ohio. Rural Action will recruit VISTA field workers from the area to help communities conduct meetings and community assessments, write comprehensive plans following basic principles of sustainable development, and guide citizens in grant writing.

Youth Ventures, The Learning Web, Tompkins County, NY. An $87,784 grant to involve young people, age 14-24 in entrepreneurial training by teaching them business management, finance, personnel, community relations, marketing, inventory, bookkeeping, and facilities management. The Youth Venture project provides its participants with meaningful and challenging work-based opportunities to acquire basic work skills and the more advanced decision-making required by the workplace.

Gilmer County Adult Literacy Project, Gilmer County, GA. A $21,640 grant to the Adult Learning Center, a successful program with a 96% success rate for graduates passing their GED test. The program is supported by 29 volunteer instructors who have been instructed in adult basic education programs. The ARC funding will permit the center to double in size. Area businesses have supplied financial support as well as materials to renovate the facility.

Math and Science Institutes. The ARC has collaborated with the U.S. Department of Energy for the past six years to provide summer math and science institutes for teachers and students at two of the Department's laboratory facilities: Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee and the Continuous Electronic Beam Accelerator Facility (CEBAF) in Newport News, Virginia. Nearly 225 students and 70 teachers from throughout the Region have participated in these summer institutes. The purpose of these institutes is to introduce a team approach to learning and problem-solving under the leadership of research scientists who work directly with the participants. ARC Funds: $ 150,000.

Comprehensive Dental Services, Cocke County, Tennessee. As a result of a $37,500 ARC grant, the East Tennessee Community Health Agency will be able to double the dental services available in Cocke County for low-income and indigent citizens. No private dentists in the available in Cocke County for low-income and indigent citizens. No private dentists in the county will accept TennCare (Tennessee's reformed Medicaid program). Without dental services provided by the health clinic, indigent residents often must travel 45 miles to Knoxville for dental care.

Administration of Area Development Program

Under the area development program, the Commission approves individual projects under the terms of the applicable sections of the Act. The individual projects are then administered and monitored by those Federal agencies which, under the Appalachian Act, have been given the responsibility for administration. The Commission reimburses some of these agencies for their cost in administering the program. The estimate for FY 1997 is $680,000, the same as was requested for FY 1996. The Commission is currently reviewing all of its interagency agreements for project administration in 1996 to update and refine provisions.

Many of the agencies which administer ARC area development projects, including those for which ARC currently does not pay administrative expenses, have requested modification of current agreements with potentially increased reimbursement of expenses. This may increase administrative expenses above what is requested for FY 1997.

The table below summarizes estimated Federal agency administration costs.

	Administration (thousands of dollars)		
	1995 Actual Obligations	1996 Estimate	1997 Estimate
Health and Human Services	$244	$240	$240
Department of Education	136	140	140
Infrastructure Grants:			
RDA	232	150	150
TVA	100	100	100
Other and Contingencies	0	50	50
TOTAL	$712	$680	$680

Designated Distressed Counties

The following 115 (of 399) counties in the Appalachian Region are currently designated for special assistance as Distressed Counties, because they qualify under the following criteria:

(1) Counties have all three of the following economic indicators:

- Per capita market income no greater than two-thirds (67 percent) the U.S. average;
- Three-year unemployment at 150 percent of the U.S. average or greater; and
- Poverty rate which is at least 150 percent of the U.S. average; or

(2) Counties have at least twice the national poverty rate plus one other economic indicator.

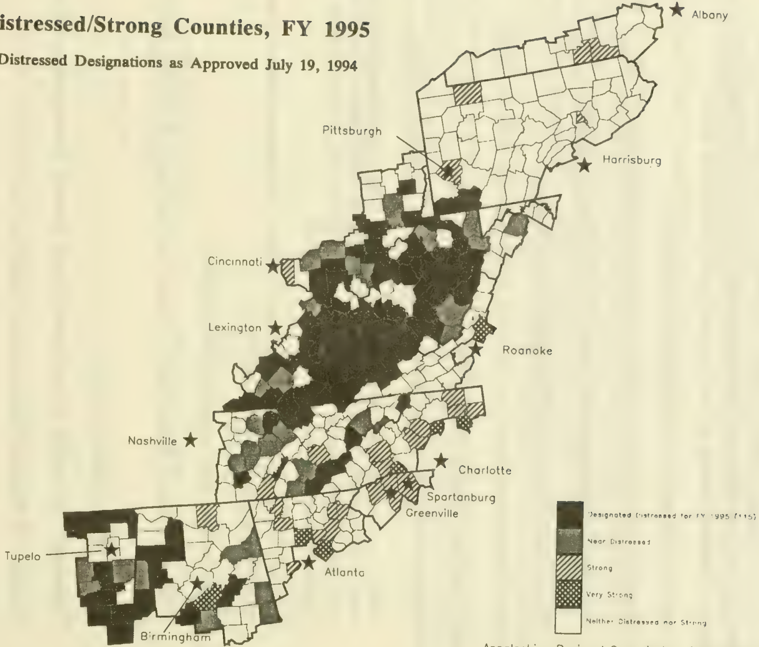
Currently, Distressed Counties include:

- Alabama -- (7) Bibb, Fayette, Lawrence, Marion, Pickens, Talladega and Winston
- Kentucky -- (38) Bath, Bell, Breathitt, Carter, Casey, Clay, Clinton, Cumberland, Elliott, Estill, Floyd, Harlan, Jackson, Johnson, Knott, Knox, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Magoffin, Martin, Menifee, Monroe, Montgomery, Morgan, Owsley, Perry, Pike, Powell, Rockcastle, Rowan, Wayne, Whitley, and Wolfe
- Mississippi -- (12) Alcorn, Benton, Chickasaw, Choctaw, Clay, Kemper, Marshall, Noxubee, Oktibbeha, Tippah, Tishomingo, and Winston
- North Carolina -- (3) Cherokee, Graham, and Swain
- Ohio -- (10) Adams, Athens, Harrison, Meigs, Monroe, Morgan, Perry, Pike, Scioto, and Vinton
- Pennsylvania -- (2) Fayette, Greene
- Tennessee -- (8) Campbell, Cocke, Fentress, Grundy, Hancock, Johnson, Meigs, and Scott
- Virginia -- (5) Buchanan, Dickenson, Lee, Russell, and Wise
- West Virginia -- (30) Barbour, Boone, Braxton, Calhoun, Clay, Fayette, Gilmer, Jackson, Lewis, Lincoln, Logan, McDowell, Marion, Mason, Mingo, Nicholas, Pleasants, Pocahontas, Raleigh, Randolph, Ritchie, Roane, Summers, Taylor, Upshur, Wayne, Webster, Wetzel, Wirt, and Wyoming

The following map illustrates the geographic concentrations of these severely distressed counties in the Region.

Distressed/Strong Counties, FY 1995

Distressed Designations as Approved July 19, 1994



Appalachian Regional Commission, September 1995

LOCAL DEVELOPMENT DISTRICTS AND TECHNICAL ASSISTANCE PROGRAM

Local Development Districts and Technical Assistance
(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
Local Development District Allocation	4,400	4,400	4,400	-0-
Additional LDD Support	110	589	N/A	N/A
From prior year balance	0	730	-0-	-0-
Technical Assistance	900	900	900	900
TOTAL	5,410	6,619	5,300	-1,319

Local Development Districts

The FY 1997 request for support of the Local Development District (LDD) program is $4.4 million, which is the same as was requested for 1996. Many of the Appalachian States allocate additional funding to their LDDs from their area development allocation to help offset LDD operating expenses. This amount increased from $110 thousand in 1995 to $589 thousand in 1996. Additional LDD support in 1997 will depend on the level of operations support as determined by the States.

The Appalachian Regional Development Act clearly recognized the key role of multi-county planning and development agencies in economic development. They began primarily as planning and coordination agencies, but over the years have expanded their roles to those of service providers and organizational support systems to their member units of government.

The LDDs remain an essential element of the ARC program. They work with member governments and local citizens to determine local needs and priorities, and they plan for a broad range of economic development assistance. They have also expanded their roles to assume responsibilities arising from transferring Federal programs to States and localities. Local governmental units increasingly rely on the LDDs to implement services and reduce costs to the local governments. LDDs are also promoting and actively pursuing public/private partnerships in developing programs to strengthen local economies. While they are continuing the roles of planner, program developer, and grantor, they are also pursuing increased activities and involvement in such areas as tourism, geographic information systems, telecommunications, and small business and enterprise development programs.

The LDDs are filling the most pressing need in the entire rural development initiative, namely, the "building of local capacity." They are the mechanism for ensuring that small governments have the capacity to compete for Federal and State funding and to promote rural development They provide competent support staff to member governments to plan, initiate, and implement projects at the grassroots level.

In addition to overall administrative support for the 69 LDDs, ARC is also helping them become better prepared for their expanded roles and responsibilities by sponsoring seminars and training programs. From the technical assistance program, a grant is being used for training programs to strengthen the LDDs, their staff and operations, and their member units of government. Additional training programs completed or scheduled during FY 1996 include the following:

- The LDDs were trained on the Commission's three regional initiatives (internationalization of the economy, telecommunications, and leadership and civic development). Training focused on the LDDs' key role in developing and implementing projects based on the goals and benchmarks established for the initiatives. An additional training session on the internationalization initiative is under development.

- A two-day workshop on "public awareness, public relations, and the art of inclusion."

- A two-day training program on the use of computers for information and networking.

- A financial management workshop in light of the newly revised OMB circulars A-87 and A-122.

As a result of past training programs, technical assistance groups of knowledgeable LDD personnel have been formed, and are available to assist other LDDs in implementing their ideas and new programs. To help facilitate this "inter-LDD" process, the Commission has also made funding available for LDD personnel to be reimbursed for travel expenses when visiting other districts to assist identifying or implementing new program initiatives. The Commission's ultimate objective is to make available to communities an organization of highly-trained professionals that will help build capacity in those communities.

The following table shows currently approved funding amounts by State and fiscal year.

LDD Funding Amounts by State
(thousands of dollars)

Basic Support Program Amounts	No. of LDDs	1995 Actual	1996 Actual	1997 Estimate
Alabama	7	$413	$533	$413
Georgia	6	339	337	338
Kentucky	9	596	507	507
Maryland	1	110	110	110
Mississippi	4	250	247	240
New York	3	243	438	243
North Carolina	6	366	366	366
Ohio	3	253	479	253
Pennsylvania	7	517	531	516
South Carolina	1	158	158	158
Tennessee	5	369	367	363
Virginia	6	325	340	325
West Virginia	11	571	576	568
Special Support	--	--	--	--
TOTALS	69	$4,510	$4,989	$4,400

Commission Technical Assistance

The amount of $900 thousand is requested for Commission technical assistance, the same amount requested since FY 1993. Technical assistance projects cut across ARC program lines and provide the Commission member States and others with information to assist policy and program development. The two major components of technical assistance are program area research and regional analysis to monitor and assess factors affecting the Appalachian economy In addition, the Commission may support technical assistance efforts by sponsoring regional conferences and workshops on important regional development topics.

Program Area Research

Priorities for program area research are developed annually by the Commission. The Commission's Research Program, in recent years, has anticipated the development of strategic regional initiatives and focused on telecommunications technology in rural development infrastructure, tourism, industrial competitiveness, and strategic planning. Most recently, the Commission supported a series of reports for a socio-economic review of the Region and an intergovernmental relations study of the ARC process.

Other areas for research concern include international competitiveness and exports, distressed area definitions, industry analyses, and benchmarking and performance measures. The Commission is in the process of implementing a project to develop benchmarks and performance measures for the highway program, area development program, and three strategic regional initiatives.

The following are examples of projects completed during the past fiscal year:

Strategic Planning. The Commission's comprehensive strategic planning study, which is charting ARC's future direction, was funded in this category. Please see Section III for a detailed discussion of this effort.

Survey and Comparison of Distressed Area Definitions. Since 1982, the Commission has conducted a special targeted program to assist the most severely distressed counties in the Region. The Commission periodically reviews this program. In anticipation of the next reassessment of Commission programs and policy, the Commission undertook a survey of measures that are used outside the agency to identify areas with persistent economic problems.

The survey included 35 programs--17 federal programs and 18 state programs, 13 of which were the Appalachian States. The indicators most often used were poverty (23 programs), employment level (22 programs), and income (18 programs). The next most used indicator was a measure of population change (12 programs). The programs used absolute criteria (minimum or maximum level of an indicator must be attained), ranked criteria (areas above or below a threshold are eligible), and sometimes blended absolute and ranked criteria in the same program.

The Evolving Appalachian Economy. The Commission's strategic planning process included a review of the Region's economy, which is described under Regional Economic Highlights section.

Regional Analysis

The Commission is a unique repository of information about the entire Appalachian Region and its economy. It compiles, maintains, and analyzes data on the Region from county level information collected by the U.S. government and others. The data are used to compare Appalachia with the rest of the United States on important measures such as industrial composition, population change, migration, labor force, income, and poverty. Regional analysis activities enable the Commission to continually assess social and economic factors affecting the Region, to assist policy and program development, and to provide information about the Region to the States, Congress, and the public.

VI. SALARIES AND EXPENSES

Salaries and Expenses
(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
Appropriation	3,343	3,645	3,645	-0-
Obligations	3,302	3,974	3,645	-329

The salaries and expenses budget provides for the full cost of the Office of the Federal Co-Chairman and immediate staff and the contribution by the Federal government of 50 percent of the administrative expenses of the Appalachian Regional Commission. It also provides for the full cost of operations for the Office of Inspector General. The budget request for 1997 is $3.645 million, the same as was requested for 1996. The table below shows the cost to the Federal government for the Commission's administrative expenses.

Salaries and Expenses
(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
1. Federal Co-Chairman:				
A. Immediate Staff	641	825	825	-0-
B. Inspector General	390	420	420	-0-
Subtotal, Federal Co-Chairman	1,031	1,245	1,245	-0-
2. Commission Administrative Expenses (50 percent Federal contribution)	2,312	2,400	2,400	-0-
Appropriation	3,343	3,645	3,645	-0-
Use of prior year balance	-41	+329	-0-	-329
Total Obligation	3,302	3,974	3,645	-329

FEDERAL CO-CHAIRMAN AND STAFF

The request of $825,000 for the Federal Co-Chairman and immediate staff provides for a Federal staff of seven persons with their related travel, personnel benefits, and other costs. (This estimate assumes that the President continues to choose not to fill the Alternate Federal Co-Chairman position. There would be additional budget requirements if this position were filled). The Federal Co-Chairman's staff is paid entirely by the Federal government and assists in carrying out the Federal Co-Chairman's policies and responsibilities including handling relationships with other Federal agencies, the Congress and the States and the financial management of the Appalachian Regional Development Program as delegated by the President.

INSPECTOR GENERAL

The Inspector General Act Amendment of 1988 (P.L.100-504) required ARC to establish an independent Office of Inspector General in FY 1989. The Inspector General reports directly to the Federal Co-Chairman.

The Office of the Inspector General requests $420,000 in funding for FY 1997, the same amount as was requested for FY 1996. The level requested is necessary to maintain the current level of Office of Inspector General operations, which includes a variety of headquarters and grantee reviews that are performed by permanent and contract audit staff. Three Federal employees are assigned to this Office.

The tables below show object class estimates for the request for the Federal Co-Chairman's staff.

Federal Co-Chairman's Office Administrative Expenses

(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
Personnel Compensation	410	600	608	+8
Personnel Benefits	68	100	102	+2
Travel & Transportation	27	97	55	-42
Services	68	284	25	-259
Miscellaneous Charges	7	12	2	-10
Supplies and Materials	9	0	2	+2
Equipment	30	33	31	-2
Total	619	1,126	825	-301

The decrease in services for the Federal Office from 1996 to 1997 is due to the anticipated need to implement contracts to complete strategic planning related studies during FY 1996. The lower personnel expenses for FY 1995 reflect reduced full-time equivalent (FTE) levels due to vacancies which were filled late in the fiscal year.

Inspector General's Office Administrative Expenses

(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
Personnel Compensation	195	198	206	+8
Personnel Benefits	28	32	34	+2
Travel & Transportation	20	32	30	-2
Services	95	152	116	-36
Miscellaneous Charges	1	0	0	-0-
Rental Payments to Others	27	34	34	-0-
Equipment	4	0	0	-0-
Total	371	448	420	-28

APPALACHIAN REGIONAL COMMISSION ADMINISTRATIVE EXPENSES

While the expenses of the Federal Co-Chairman's immediate staff are paid solely by the Federal government, the thirteen States of the Appalachian Region have responsibility for providing one-half of the administrative expenses budget of the Appalachian Regional Commission. The States' share is provided through contributions from each of the thirteen Appalachian States. The table below reflects the status of all administrative costs of the Commission staff.

ARC Administrative Expenses

(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
State Contribution	2,312	2,400	2,400	-0-
Federal Contribution	2,312	2,400	2,400	-0-
Prior year balances used	80	475	480	+5
TOTAL OBLIGATIONS	4,704	5,275	5,280	+5

The requested Federal contribution, when matched by State contributions and the use of prior year balances, will provide a budget for 1997 totaling $5.280 million, slightly more than budgeted for FY 1996. This will support a staff of 50 persons, down from a peak of 115 persons in 1980. The estimates by object class are as follows:

ARC Administrative Expenses

(thousands of dollars)

	1995 Actual	1996 Estimate	1997 Request	Change from 1996
Personnel Compensation	2,690	3,057	3,128	+71
Personnel Benefits	659	702	629	-73
Travel	101	115	126	+11
Rent to others	581	645	633	-12
Communications, Utilities, etc.	152	115	140	+25
Printing	159	172	195	+23
Other Services	253	327	290	-37
Supplies	84	92	89	-3
Equipment	25	50	50	-0-
TOTAL	4,704	5,275	5,280	+5

The fluctuation in personnel benefits costs from 1995 to 1997 stems largely from the periodic payment required for the Commission's non-federal retirement program. A special payment of $90,000, anticipated for FY 1996, is reduced in FY 1997. The large reduction in the other services category is related to the phase-out of ARC's agreement with the Department of Commerce for accounting services. The other changes reflect inflation, changes in expected operational levels related to organizational changes, technological change (computer network related communications and services costs) and object reclassification of the leased vehicle from rental to travel expenses.

As part of ARC strategic planning efforts, the Commission staff was reorganized to improve organizational efficiency and customer service -- reflecting current and anticipated future needs. ARC's management goal is **to develop effective and efficient management systems and processes and to promote an organizational culture that will enable it to achieve its programmatic vision**.

Achieving this management goal will require promoting staff innovation and creativity, improving core competencies and internal communications, improving technical assistance to states, implementing improved project evaluation and monitoring processes, reducing response time to customers, maximizing the use of telecommunications technology, and other actions.

The new staff organization is described below.

Office of the Executive Director The Executive Director is the chief administrative officer of the Commission staff. He has responsibilities for carrying out the administrative functions of the Commission, for direction of the Commission staff, and for assisting the Commission and the States in carrying out the Appalachian Regional Development Programs. This Office is responsible for the overall direction of Commission staff in the execution of Commission policy including program development and the review of State plans and project applications from the States. Further, the Executive Director serves as principal Commission staff advisor to the States and Federal Co-Chairman on matters relating to Commission programs. The Commission's Personnel Office is also directly under the administration of the Executive Director's Office.

Regional Program Operations This division implements program activities at the Federal, state and local levels. Activities within this division include implementation of regional initiatives, and all existing area development programs, including physical infrastructure, human development, distressed counties, and business development. This division is responsible for processing all project proposals submitted by the States for funding.

Regional Planning and Research Division This division is responsible for reviewing State plans, providing States with technical assistance, collecting baseline data, and establishing a performance measurement system. This division also evaluates projects, manages the Commission's research and highway programs, and collects data needed for integration of evaluation, research, and planning activities.

Office of General Counsel This office provides legal review of projects and proposals and prepares all contracts. The office also counsels the Federal Co-Chairman and individual State members on ARC-related legal matters, helps implement new management initiatives, and helps develop simplified planning and grant-making processes.

The Office of Finance and Administration This division performs all financial, accounting, management information, and auditing review functions for the Commission's program and administrative operations, as well as the monitoring and administration of the Commission's Revolving Loan Funds program. Procurement, supply, clerical, and other support services are also the responsibility of this division.

Customer Relations and External Affairs Division This division is responsible for improving internal and external communications. It manages and coordinates external events and develops and disseminates a consistent message to media, customers and other stakeholders, and the public. This division also provides customer surveys and support for conferences and other official meetings.

RELATIONSHIP OF ADMINISTRATIVE TO PROGRAM COSTS

The Appalachian Regional Development Program is unique in that it conducts a number of diverse programs involving several Federal agencies and bureaus. In conducting these programs, the agencies perform varying administrative functions for which they are reimbursed from the program appropriation.

The costs range from minimal amounts in some supplemental grant programs where the various agencies primarily process and disburse the ARC grant as an adjunct to their basic grant, to the significant costs in programs where Commission-financed projects constitute the bulk of work done. The following table shows by program the related Federal administrative costs. The current Federal administrative and other staff costs in 1996 of $6,254 million are equal to 2.07 percent of the program's total costs. The thirteen State members will also have contributed $2.400 million toward the Commission's expenses in 1996. Even with these costs, the percentage of administrative cost of total Federal appropriations is only 2.84 percent.

ARC Administrative Overhead
FY 1996
(thousands of dollars)

	Activity	Federal Program Costs	Administration Costs	Total Obligation
1.	Appalachian Regional Development Program:			
	A. Highways	200,396	1,600	201,996
	B. Area Regional Economic Development Program (Business, Human and Physical Infrastructure)	88,571	680	89,251
	C. LDD and Technical Assistance	6,619	---	6,619
	Subtotal	295,586	2,280	297,866
2.	Salaries and Expenses	---	3,974	3,974
	TOTAL FEDERAL COSTS	295,586	6,254	301,840
	Percent of Cost	97.93	2.07	100.00

THURSDAY, MARCH 28, 1996.

TENNESSEE VALLEY AUTHORITY

WITNESSES

CRAVEN CROWELL, CHAIRMAN
JOHNNY HAYES, DIRECTOR
WILLIAM KENNOY, DIRECTOR

MR. MYERS' OPENING REMARKS

Mr. MYERS. The committee will stand in recess temporarily until the people from the Tennessee Valley Authority get here.

[Pause.]

Mr. MYERS. Gentlemen, if you would have a seat.

Gentlemen, we apologize for running a little late here this morning. I understand you have been here chomping at the bit.

Mr. CROWELL. We are ready to go, Mr. Chairman, as always, as usual.

Mr. MYERS. The committee will come to order. We will be pleased to hear from the Tennessee Valley Authority and Chairman Crowell.

Your prepared statements will be placed in the record, and you may proceed as you like.

May I excuse two or three of us who have to go on to a conference with the Senate to keep the country running after this weekend? We have to go on to that meeting, but possibly we will get back before you get finished.

Mr. CROWELL. Thank you. That sounds good.

Mr. MYERS. Your prepared statement will be in the record.

Mr. CROWELL. Thank you very much.

Mr. MYERS. Mr. Frelinghuysen will chair.

MR. CROWELL'S OPENING REMARKS

Mr. CROWELL. Thank you very much, Mr. Chairman.

My colleagues on the board of directors, Johnny Hayes and Bill Kennoy, and I are pleased to meet with you today. I am here to discuss the TVA programs that are supported by appropriations by tax dollars.

TVA POWER PROGRAM

But before I do that, Mr. Chairman, I would like to update you on the status of TVA's power program. This is the electric utility side of TVA that is not supported by Federal appropriations. It is part of TVA that had revenues last year of $5.4 billion from the sale of electricity and is, in fact, more than 98 percent of our budget for what we do at TVA.

Through 160 local power companies, TVA supplies electricity for nearly 8 million people across a 7-State region. We also sell electricity directly to 62 large industrial customers in the Tennessee Valley.

I am proud to say, Mr. Chairman, this has been a year of significant accomplishments in our power program, perhaps the best we have had in 2 decades.

First, we restarted one nuclear generating unit at Browns Ferry, Alabama, which had not been in operation for 10 years, and we successfully obtained an operating license and we are now operating in a testing mode our Watts Bar facility near Spring City, Tennessee.

We, in fact, became the first utility to bring two nuclear units into operation at the same time in the history of that industry. This was an impressive technical achievement for our nuclear organization and it is good news for us financially.

These two units, which had been significant question marks, are now assets that are generating rather than consuming cash, and they will give us valuable added capacity to meet the growing energy needs of the Tennessee Valley.

At the same time, we have continued to improve our efficiency, productivity, and reliability throughout TVA's power system. Just a few examples:

On December 24, for the first time in TVA's history, all 59 fossil units and all 4 available nuclear units were operating at the same time. And then, about a month later, on January 22, 112 of our 113 hydro generators were available for operation on the same day. Then on February 5, we met the challenges of the coldest weather in recent memory and reached an all-time peak demand of 25,995 megawatts.

On the business side, we are now in our ninth consecutive year without an increase in our rates, and we are on track to go another year, go 10 years, next year.

Overall, our power program was ranked among the dozen lowest-cost power producers of the Nation's top 100 utilities by electric light and power magazine. By our own measure, in just the 5 years since 1991, we have lowered our total production expenses by almost 10 percent, from 16.4 to 15.4 mils per kilowatt hour.

Mr. Chairman, it is my belief—and I think the facts will support me—that TVA is a well run business that is ready for the competitive challenges that await us in a deregulated utility marketplace. Now, that is the part of TVA that does not receive Federal funds.

APPROPRIATED PROGRAMS

In our appropriated programs, we carry out a central responsibility as required by the TVA Act, and TVA employees carry them out with the same emphasis on quality and efficiency that has produced such significant successes on TVA's power side.

Through our system of locks and dams, TVA protects the Tennessee Valley from destructive floods. We help keep the lakes and rivers in our region clean. We keep shoreline erosion in check. We manage the Tennessee River Basin's national resources and develop solutions to some of our Nation's toughest environmental problems. These are essential functions.

TVA works in partnership with the communities we serve. We balance the needs of the economy and the environment, and, Mr. Chairman, in our approach to these duties, we are also responsive to the fiscal realities facing your committee.

We approach our responsibilities as a business. We are focused on identifying ways of doing better with what we have, and we are presenting a budget proposal today that provides for essential functions carried out efficiently and cost-effectively.

FY 1997 BUDGET REQUEST

To support TVA's Federal responsibilities, the administration proposes a total of $120 million for fiscal year 1997. Mr. Chairman, let me give you a broad overview of our requested budget breakdown, after which I will go into further detail.

Eighty-three million dollars is for TVA stewardship of dams, navigation channels, and public lands, including the Land Between the Lakes Natural Recreation Area on the Tennessee-Kentucky border, $4 million is to study the best way to handle the failing navigation lock at Chickamauga Dam, $16 million is for economic development, and $17 million is for the Environmental Research Center in Muscle Shoals, Alabama.

WATER AND LAND MANAGEMENT

Now let me describe in more detail what TVA delivers in each of these areas. Water and land management accounts for nearly 70 percent of the $120 million budget proposed by the administration. This number includes stewardship and maintenance of the 652-mile Tennessee River and its 60,000 miles of tributaries. Notably, we are responsible for dams, navigation locks, shorelines, and public lands, including the 170,000-acre Land Between The Lakes.

Now, taking these items in order, TVA is responsible for 54 dams on the Tennessee River System, which is the fifth largest river system in the United States. Each year, the secure operation of these dams prevents an estimated $1 billion of flood damage in the Tennessee Valley. Often, as in the floods of 1993, they minimize flood damage from the Ohio River and the lower Mississippi River by holding back the water along the Tennessee.

At the same time, TVA's 14 locks and navigation systems ensure passage for some 34,000 barges and 48 million tons of cargo annually. TVA's navigation system opened the southeastern United States to commercial shipping. It provided navigation to ports in 21 other States and ports throughout the world.

These dams are valuable national assets, providing essential services and additional benefits, notably an extensive lake recreation system which is the center of a $1.5 billion water-based recreation and tourism industry.

TVA's reservoir system has created one of the better sport fishery opportunities in our Nation. Maintaining the dams and locks and managing the water flow, commerce, and recreation along the Tennessee River System are necessary jobs. They are essential jobs that TVA has a long and proven record of fulfilling cost-effectively.

LAND BETWEEN THE LAKES

For example, earned revenue at Land Between The Lakes this year covered 36 percent of operating costs. In addition, Mr. Chairman, we are evaluating plans for LBL to be 80 percent self-sufficient by the year 2000.

LBL is our Nation's largest uninterrupted stretch of public forest between the Rockies and the Appalachian Mountains. It is within a day's drive of one-third of the population of the United States. Last year it attracted more than 2 million visitors, including some 31,000 young people taking part in environmental education programs.

Mr. Chairman, the requested budget for fiscal year 1997 allows us to address maintenance backlogs such as those on water control equipment and structures at TVA dams, which are essential for public safety.

CHICKAMAUGA DAM AND LOCK

Four million dollars million of our budget request is for a feasibility study and design work to handle the failing lock at Chickamauga Dam directly up river from Chattanooga.

Chickamauga Lock provides a passage for thousands of commercial vehicles and recreation boats each year. Since the lock was built, deterioration of the gate block due to concrete growth has caused serious operational problems, and each year the risk of complete failure of that lock increases. It has a life expectancy of about 10 years, at best.

The Chickamauga Dam and Lock are necessary for transporting industrial goods on the Tennessee River. If Chickamauga Lock were closed, the Nation would lose 300 miles of navigable waterway.

ECONOMIC DEVELOPMENT

Now, $16 million is proposed for TVA's economic development efforts. We have invested in business incubator projects across the valley which have resulted in 300 new companies and 3,000 new jobs for the region. These new businesses have a more than 90 percent success rate.

TVA no longer gives grants. Last year, 85 percent of all appropriated projects had more than $3 invested by other parties for every TVA dollar. Over the years, TVA's economic development investments have paid off in growth and prosperity for the valley.

There continues to be a need for programs that address gaps in the valley's per capita income that today still lags 18 percent below the rest of the Nation.

The TVA board is sensitive to budget pressures facing all of you, facing the Federal Government. That is the reason we have taken the steps to streamline our economic development operation and have begun a transition program that will allow us to phase out our economic development appropriations request over the next 3 years.

ENVIRONMENTAL RESEARCH CENTER

Now, TVA's Environmental Research Center in Muscle Shoals, Alabama, is in the midst of a transition itself to becoming a self-supporting business to solve environmental problems for customers.

The ERC directs scientific research and technology development to produce affordable solutions to some of the Nation's toughest environmental problems. Specifically, the ERC is providing cost-effective solutions for cities to meet their air quality goals, industry to cheaply filter air emissions and waste water effluents, and developers to clean up contaminated sites and put them back into productive use.

The research center's work is important to the sustainability of development in our region and across the country, and we are aggressively seeking business partners to take on a larger and larger portion of the funding for the ERC.

As Congress has requested, a plan showing how we will transition the ERC from appropriations will be submitted this week. The $17 million request of the ERC will allow it to enter the second year of its plan to become self-sufficient. It will allow the ERC to continue its vital technology development without losing the benefits of years of public investment.

CONCLUSION

Overall, TVA is managing its appropriated programs to America's corporate standards and TVA is leading the way in setting standards in resource management for Federal agencies. We manage our Federally mandated programs with the same quality principles and practices that have brought success to the power side of our business.

In conclusion, Mr. Chairman, we submit this budget request in the spirit of government that does the most it can with the funds available. We perform services that are essential. We bring the efficiency of our business side to the work we do with Federal funds, and we apply innovative solutions that provide maximum benefits to the people we serve.

Thank you for this opportunity to present our testimony. I would like to take a moment though—and I am sorry that Chairman Myers is not here—on behalf of the TVA board and all the employees to recognize and thank Chairman Myers and Congressman Bevill for your many years of service. We appreciate all you have done for our region, for the Nation, and for TVA.

And, Mr. Chairman I would also like to thank you, the members of your committee and staff, for the close working relationship we have had over the past years—past year, with both of you and the committee.

And now, Mr. Chairman, my fellow board members and I would be happy to answer any questions you may have.

[The prepared statement of Mr. Crowell follows:]

TESTIMONY OF CRAVEN CROWELL, CHAIRMAN
TENNESSEE VALLEY AUTHORITY
BEFORE THE ENERGY AND WATER SUBCOMMITTEE
OF THE HOUSE APPROPRIATIONS COMMITTEE
U.S. HOUSE OF REPRESENTATIVES
MARCH 28, 1996 -- WASHINGTON, D.C.

Thank you, Mr. Chairman. My colleagues on the Board of Directors, Johnny Hayes and Bill Kennoy, and I are pleased to meet with you today.

UPDATE ON POWER PROGRAM

I am here to discuss the TVA programs that are supported by appropriations. But before I do that, Mr. Chairman, I would like to update you on the status of TVA's power program. This is the electric-utility side of TVA, that is not supported by federal appropriations.

TVA had revenues of $5.4 billion from the sale of electricity last year. Through 160 local power companies, TVA supplies the electricity for nearly eight million Americans across a seven-state region. We also sell electricity directly to 62 large industrial customers in the Tennessee Valley.

Mr. Chairman, I'm proud to say this has been a year of significant accomplishments in our power program. First, we restarted one nuclear generating unit at Browns Ferry, Alabama, and successfully started operations at our Watts Bar plant in Spring City, Tennessee. This was an impressive technical achievement for our nuclear organization, and it is good news for us financially.

These two units, which had been significant question marks, are now assets that are generating, rather than consuming cash, and they will give us valuable added capacity to meet the growing energy needs of the Tennessee Valley. At the same time, we have continued to improve our efficiency, productivity and reliability throughout TVA's power system.

On December 24, for the first time in history, all 59 fossil units and four available nuclear units were operating at the same time. On January 22, 112 of 113 hydro generators were available for operation on the same day, and on February 5, we met the challenges of the coldest weather in recent memory and reached an all-time peak demand of 25,995 megawatts.

On the business side, we are now in our ninth consecutive year without an increase in our rates, and we are on track to extend that record another year. Overall, our power program was ranked among the dozen lowest-cost power producers of the nation's Top 100 utilities by *Electric Light & Power* magazine. By our own measure, in just the five years since 1991, we've lowered our total production expense by almost 10 percent, from 16.4 to 15.4 mills per kilowatt hour.

Mr. Chairman, TVA is a well-run business that is ready for the competitive challenges that await us in a deregulated utility marketplace. Our workforce has gone from 34,000 in 1988 to 16,500 today, or half of what it was just eight years ago. Including our payroll savings, we have cut our annual expenses by some $800 million.

We have ended our nuclear construction program, and we are aggressively managing our debt. In the past year alone we've successfully sold bond issues to retail investors, on international markets, and on regional markets. As a result, we're getting better interest rates and developing greater flexibility in managing our debt. Because of our refinancing measures, we are saving more than $300 million a year in interest expenses. Although we are a federal corporation, we are a business in a competitive marketplace.

APPROPRIATED PROGRAMS

That's the part of TVA that does not receive federal funds. In our appropriated programs, we carry out essential responsibilities required by the TVA Act. And TVA employees carry them out with the same emphasis on quality and efficiency that has produced such significant successes on TVA's power side.

Through our system of locks and dams, TVA protects the Tennessee Valley from destructive floods and maintains navigation channels. We help keep the lakes and rivers in our region clean. We keep shoreline erosion in check.

We manage the Tennessee River Basin's natural resources, and develop solutions to some of our nation's toughest environmental problems. These are essential functions.

TVA works in partnership with the communities we serve. We balance the needs of the economy and the environment, and, Mr. Chairman, in our approach to these duties, we are also responsive to the fiscal realities facing your committee. We approach our responsibilities as a business. We are focused on identifying ways of doing better with what we have, and we are presenting a budget proposal today that provides for essential functions, carried out efficiently and cost-effectively.

OUR BUDGET PROPOSAL

To support TVA's federal responsibilities, the Administration proposes a total of $120 million for fiscal year 1997. Mr. Chairman, let me give a broad overview of our requested budget breakdown, after which I will go into further detail.

- $83 million is for TVA's stewardship of dams, navigation channels, and public lands, including the Land Between the Lakes National Recreation Area on the Tennessee-Kentucky border.
- $4 million is to study the best way to handle the failing navigation lock at Chickamauga Dam
- $16 million is for economic development,
- and $17 million is for the Environmental Research Center in Muscle Shoals, Alabama.

Let me describe in more detail what TVA delivers in each of those areas.

WATER AND LAND MANAGEMENT

Water and land management accounts for nearly 70 percent of the $120 million budget proposed by the Administration. This number includes stewardship and maintenance of the 652-mile Tennessee River and its 60,000 miles of tributaries. Notably, we are responsible for ---

- dams,

- navigation locks and channels,

- shorelines,

- and public lands, including the 170,000-acre Land Between the Lakes.

Taking these items in order: TVA is responsible for 54 dams on the Tennessee River system, the fifth-largest river system in the United States. Each year the secure operation of these dams prevents an estimated $1 billion of flood damage in the Tennessee Valley.

Often, as in the floods of 1993, they minimize flood damage from the Ohio and lower Mississippi by holding back the water that would drain from the Tennessee. At the same time, TVA's 14 locks and navigation channels ensure passage for some 34,000 barges and 48 million tons of cargo annually. TVA's navigation system opened the Southeastern United States to commercial shipping.

It provided navigation to ports in 21 other states and ports throughout the world. These dams are valuable national assets, providing essential services and additional benefits, notably an extensive lake recreation system, which is the center of a $1.5 billion water-based recreation and tourism industry. TVA's reservoir system has created one of the better sport-fishery opportunities in our nation.

Maintaining the dams and locks, and managing the water flow, commerce, and recreation along the Tennessee River system are necessary jobs. They are essential jobs, that TVA has a long and proven record of fulfilling cost-effectively. For example, earned revenue at Land Between the Lakes this past year covered 36 percent of operating costs.

In addition, Mr. Chairman, we are evaluating plans for L-B-L to be 80 percent self-sufficient by the Year 2000. L-B-L is our Nation's largest uninterrupted stretch of public forest between the Rockies and the Appalachian mountains. It is within a day's drive of one-third of the population of the United States, and last year it attracted more than two million visitors, including some 31,000 young people taking part in environmental education programs.

Mr. Chairman, the requested budget for FY97 allows us to address maintenance backlogs, such as those on water-control equipment and structures at TVA's dams, which are essential for public safety.

CHICKAMAUGA LOCK

$4 million of our budget request is to complete a feasibility study and design work for handling the failing lock at Chickamauga Dam, directly upriver from Chattanooga. Chickamauga lock provides passage for thousands of commercial vessels and recreation boats each year. Since the lock was built, deterioration of the gate block due to concrete growth has caused serious operation problems, and each year the risk of complete failure of that lock increases.

It has a life expectancy of 10 years at best. The Chickamauga Dam and lock are necessary for transporting industrial goods on the Tennessee River. If Chickamauga Lock were closed, the nation would lose almost 300 miles of navigable waterway.

ECONOMIC DEVELOPMENT

$16 million is proposed for TVA's economic development efforts. We have invested in business- incubator projects across the Valley, which have resulted in 300 new companies and 3,000 new jobs for the region.

These new businesses have more than a 90-percent success rate. TVA no longer gives grants: Last year 85 percent of all appropriated projects had more than three dollars invested by other partners for every TVA dollar. Over the years, TVA's Economic Development investments have paid off in growth and prosperity for the Valley, and there continues to be a need for programs that address gaps in the Valley's per capita income that today still lags 18 percent below the rest of the nation.

The TVA Board is sensitive to budget pressures facing the federal government. That is the reason we have taken steps to streamline our Economic Development operation and have begun a transition program that will allow us to phase out our Economic Development appropriations requests over the next three years.

ENVIRONMENTAL RESEARCH CENTER

TVA's Environmental Research Center in Muscle Shoals, Alabama, is in the midst of a transition, to becoming a self-supporting business to solve environmental problems for customers. The E-R-C directs scientific research and technology development to produce affordable solutions to some of the nation's toughest environmental problems. Specifically, the E-R-C is providing cost-effective solutions for ---

- cities to meet their air-quality goals,
- industry to cheaply filter air emissions and waste-water effluents,
- and developers to clean up contaminated sites and put them back into productive use.

The Research Center's work is important to the sustainability of development in our region and across the country, and we are aggressively seeking business partners to take on a larger and larger portion of the funding for the E-R-C.

As Congress has requested, a plan showing how we will transition the E-R-C from appropriations will be submitted this week. The $17 million requested for the E-R-C will allow it to enter the second year of its plan to become self-sufficient. It will allow the E-R-C to continue its vital technology development without losing the benefits of years of public investment.

Overall, TVA is managing its appropriated programs to America's corporate standards, and TVA is leading the way in setting standards in resource management for federal agencies. We manage our federally mandated programs with the same quality principles and practices that have brought success to the power side.

CONCLUSION

Mr. Chairman, we submit this budget request in the spirit of government that does the most it can with the funds available. We perform services that are essential. We bring the efficiency of our business side to the work we do, and we apply innovative solutions that provide maximum benefits to the people we serve.

Thank you for this opportunity. I'd like to take a moment, on behalf of the TVA Board and all TVA employees, to recognize and thank you, Chairman Myers, and Congressman Bevill for your many years of service. We appreciate all you have done for our region and TVA, and Mr. Chairman, I would also like to thank you, the members of your committee and staff, for the close working relationship we've had over the past year, and now, Mr. Chairman, my fellow Board members and I will be happy to answer your questions.

# #

Mr. FRELINGHUYSEN [presiding]. Thank you very much for your testimony.

The first questioner this morning is going to be Congressman Knollenberg.

MR. KNOLLENBERG'S OPENING REMARKS

Mr. KNOLLENBERG. Thank you, Mr. Chairman. I appreciate your courtesy and also that of Mr. Bevill in the hopes of getting a question or two in before I have to run to another meeting.

I appreciate hearing both from ARC previously and from TVA, and I will ask one or two of the same questions that I asked them having to do with full-time employees and that kind of thing.

DAM MANAGEMENT

But I wanted to focus on the possibility of duplication when you have several agencies that deal with dams, for example. In the last 2 weeks we have heard testimony from the Army Corps of Engineers; from the Interior's Bureau of Reclamation; from the Federal Energy Regulatory Commission; and, of course, now the TVA.

Mr. CROWELL. Right.

Mr. KNOLLENBERG. They all expressed their obligations and their responsibility and their concerns about, the Nation's dams, for example, and I guess there are some other agencies out there that might have some interest in dam management. I could speak about that for a while, too.

But wouldn't it be more efficient, just thinking out loud, to maybe consolidate this under one agency? And I would like your thoughts about why it would be, wouldn't be, or shouldn't be, or how maybe it could be.

Mr. CROWELL. Well, let me answer that question this way, and I will try to stay out of difficulty with other agencies here as I try to give you an honest answer to your question. And let me use an example of the Corps of Engineers, which is an agency that you mentioned.

There was a 1990 Department of the Army study that suggested that the Corps projects along the Cumberland River, which is along our service area—there are 10 dams in that area—that they in fact be turned over to TVA for operation.

We have been asked to respond to that 1990 report. In looking at it, we found out, for example, that if you take the dams—the 54 dams that TVA operates, we operate those with an average of 24 people per dam, whereas the Corps has 10 dams and operates them with an average of 70 people per dam. And in looking at that particular project, we determined that we could save perhaps as much as a half a billion dollars over 5 years if we operated the Cumberland system as opposed to the Corps operating the system.

So I think that—I guess what I am trying to say in answer to your question is, I think that our experience in operating dams shows that we do it very efficiently and more efficiently than other people do.

Now, I don't think that there is any generic reason why you couldn't have one agency operate all the dams in the country if that is what Congress chose to do, but I would simply caution Congress to make sure that you are getting the most efficient operation you can get, and we believe that we are the best.

If you look at our costs and look at what—at the fact that other countries come to the Tennessee Valley to look at our hydro operations and to try to model their programs after ours, I think that you will find that, from a hydroelectric standpoint, we are the best that there is around and that we are known for that internationally.

Mr. KNOLLENBERG. Would you say that you would be lusting for an opportunity to do that?

Mr. CROWELL. Congressman, you are trying to get me in trouble with the Corps of Engineers here.

Mr. KNOLLENBERG. I recognize it has a——

Mr. CROWELL. We think that—we think we can do a better job than they are and do it for less money, but I don't think I would use the words "lusting after."

We were asked to respond to it, and we did, and—and that matter on the Cumberland River is still under some discussion between the Army—the OMB and us, with no resolution at this point to whether it stays like it is or whether or not it is—it is transferred to us.

Mr. KNOLLENBERG. I accept your answer. It is interesting.

EMPLOYMENT LEVELS

Let me ask a little bit about staffing levels.

Mr. CROWELL. Yes.

Mr. KNOLLENBERG. How many FTEs does the TVA currently have?

Mr. CROWELL. We have 16,500, roughly.

Mr. KNOLLENBERG. Is that a downward trend? Obviously, it must be in some sense.

Mr. CROWELL. Yes. In 1988 we had about 34,000 employees at TVA. We now have 16,500. And I might add that in doing that downsizing, we have—our productivity has tripled as a result of the downsizing. We are doing more work with about half the people.

Mr. KNOLLENBERG. More with less.

Mr. CROWELL. More with less, absolutely.

Mr. KNOLLENBERG. What percentage of your FTEs that you currently have are administrative versus hands-on types? Has that changed any? Has the ratio changed since your reduction in personnel?

Mr. CROWELL. Yes. I may have to supply that for the record. The ratio has changed across the board—well, no, the ratio hasn't changed, the number of employees has changed across the board, and I would—I would—my thought is that the administrative people have decreased more than the people out—actually operating the plants and doing the front line work. But I don't remember—I don't recall those percentages right now, but I would be happy to supply them to you.

Mr. KNOLLENBERG. If you would, please.

Mr. CROWELL. Yes, sir. Absolutely

Mr. KNOLLENBERG. What I am looking for is the administrative supervisory versus those hands on type people.

Mr. CROWELL. Right.

[The information follows:]

On February 19, 1996, TVA had 16,502 FTEs. The number of FTEs is driven by the business requirements of TVA. Downsizing and the early-out programs affect the overall number of employees; however, these activities are simply components of TVA's overall employment strategy. The ultimate number and skill levels of employees for TVA or any business are determined by the products and services provided.

TVA's administrative functions are primarily comprised of activity within the financial, legal, human resources, retirement services, and general administrative areas. TVA has approximately 1,000 employees in the various administrative organizations, which equates to approximately 6% of TVA's total employee workforce. The remaining 94% of TVA's employees are directly involved in the day-to-day business activity of the appropriated and non-appropriated programs.

The ratio of administrative versus hand-on employees has remained virtually the same for several years and has not been significantly impacted by any downsizing programs. The downsizing and early-out programs have been directed across all TVA organizations.

Mr. KNOLLENBERG. It seems to me if you are becoming more efficient, either somebody with brains is doing something or some hands-on people are doing a lot more, using technology and a whole lot of other things.

Mr. CROWELL. Well, I might say this, that I think it is somebody with brains, and I am suggesting it is the three of us at this table.

What I am suggesting is that the three of us have made it a top priority to recruit the best people and surround ourselves with the best people that we could find, and I am very proud of the team we have assembled.

So I would not take credit myself or suggest that the three of us take credit for successes. I really think it belongs in the hands of the employees on the front line and the managers that we have assembled who are top notch.

So I do think it takes brains to do well, but I also think it is important to surround yourself with the best people you can find.

CONSULTANT CONTRACTS

Mr. KNOLLENBERG. I can't help connect that to an article that you are, I am sure, very familiar with that appeared in the Knoxville News, and I don't place any real credence in this, except I think it is worth a question.

Mr. CROWELL. Yes.

Mr. KNOLLENBERG. Obviously, articles appeared in the Knoxville News on two different dates.

But the question that I just wanted to raise with you concerns the allegations by those that are making these charges. One of the quotes is, "Golden parachutes abound. They are all around. TVA likes to talk about how experienced their staff is on nuclear matters so they shouldn't have to"—this is their point of view—"shouldn't have to rely on outside consultants."

And, of course, this is all about some $350,000 or so that was paid. I would just like your comment on that, and my colleagues may want to ask more questions about that, too.

Mr. CROWELL. Okay. Well, I have read the story, so I know what you are talking about.

Mr. KNOLLENBERG. I imagine you have.

Mr. CROWELL. Let me say this. If you just look at the record shows TVA is, from an operational standpoint, doing better than it has probably in 2 decades. We have taken some decisive actions on operating TVA more as a business. We are ranked very high in any rankings on operations.

This has been accomplished because we have surrounded ourselves with good people, both inside and outside TVA. We have called on consultants with expertise to help us.

Mr. KNOLLENBERG. Which are beyond the arena of your own personnel?

Mr. CROWELL. That is right, which is beyond the arena, because it is just simply not possible to hire a full-time employee to cover every conceivable area.

In fact, consulting permits you to hire people for just the time you need them and not have them as full-time employees when they are on the payroll and perhaps not performing a duty that you have them doing.

Mr. KNOLLENBERG. And this is done fairly selectively but on a one-of-a-kind or on a single-case agreement basis?

Mr. CROWELL. Yes. It is done on one-of-a-kind, depending on the task that we need help on.

We are the largest generator of electricity in the United States, and every other good company does exactly what we are doing, hiring consultants to help us on specific matters.

I don't think that we have any apology to make for doing that. I think that the—that success speaks for itself, and the fact that we are doing so well operationally is not an accident, it has happened because we have, as I said earlier, surrounded ourselves with the best people, both internally and externally.

So sometimes people want to make things out of nothing. I think that the record speaks for itself. I think we are doing very well, and I think it is because we have reached out for help and that we have not tried to make all the decisions without the best information.

So, Congressman, I don't think I have any apology to make for any of that.

TVA SUNSET

Mr. KNOLLENBERG. Let me go on to a final question, and I will submit a couple of others for the record in the interest of time. I have asked this question of everybody that has come before us, ARC prior to you.

Do you foresee, or can you anticipate seeing, a sunset on TVA? Is there any light out there at the end of the tunnel that some day this project may come to an end?

Mr. CROWELL. Are you talking about the whole of TVA? Are you talking about specific appropriated funded programs or all of TVA? Are you talking about privatization?

Mr. KNOLLENBERG. I am talking about all of TVA, I guess, generally, and if you want to break it down in a couple of ways, that is all right.

But the whole idea, I think, is that a lot of people in my district, which is removed from this area of the country, are saying some interesting things about TVA.

This was begun back in the thirties. It was supposed to be a temporary thing, in their judgment. Well, it isn't exactly temporary. It is still there. It still lives. And so to help me understand better, can you offer me something that I can transmit to my constituents that might indicate there will be closure on this at some point?

Mr. CROWELL. I don't think I can reassure you about a closure, Congressman. Let me comment on your question this way:

Historically, TVA was not created to be one of a kind but created to be replicated elsewhere in the country. It just didn't happen because of political circumstances, other things, back in the thirties. So I don't—I think it was an experiment that has been very successful and was intended to be replicated.

Now, if you look at whether there is a sunset, I don't think so, for a very simple reason, that TVA is the only entity that can guarantee a power supply to everyone in our service area.

And what I mean by "guarantee a power supply," if you look at rural areas or you look at the higher-cost customers to serve, TVA serves those and will continue to serve those, whereas some other company might choose to not serve them because the costs are higher.

So if you look at that region, TVA is the only one that can guarantee the power supply for the future for everyone, not just the best customers with the highest profit ratio but also the rural customers who also depend on us for electricity.

I think over a period of time, as deregulation occurs, I think TVA will have to undergo some changes, because deregulation will require that and will put us in a position where we will need to be more flexible, and perhaps—and perhaps seek changes and perhaps be up here to talk to you about some changes in the way we operate.

But I cannot foresee any circumstance in which TVA would be sunsetted.

Mr. KNOLLENBERG. I appreciate that response and the commentary.

I again want to thank the Chair and Mr. Bevill for their courtesy for allowing me to go forward first. Thank you very kindly.

Mr. FRELINGHUYSEN. Thank you, Mr. Knollenberg.

Mr. Bevill.

MR. BEVILL'S OPENING REMARKS

Mr. BEVILL. Thank you, Mr. Chairman.

I welcome you three gentlemen and commend you for the tremendous job you are doing. I think Mr. Knollenberg has asked some very good questions there, and I would like to follow up on them, as a matter of fact.

Now, when we talk about sunsetting, in your proposals I understand you do plan sunsetting certain phases——

Mr. CROWELL. Yes.

Mr. BEVILL [continuing]. Of TVA, because you are updating the operation, as you just recently reduced from 26 or 27 thousand employees down to—wasn't it about 10,000 employees that either retired or took an early retirement and that sort of thing to get it down to 16,500?

Mr. CROWELL. Right.

Mr. BEVILL. Which is a big percentage of the employees, and yet you are producing more electricity and accomplishing more than you did then. I think that is a commendable record.

I am also aware of the fact that officials from China, Russia, and countries all over the world, come to see the TVA because they are impressed with the record that you have made.

Mr. CROWELL. Yes.

Mr. BEVILL. If they weren't impressed with it, they wouldn't be coming to see it.

Mr. CROWELL. I think that is true, yes.

ENVIRONMENTAL RESEARCH CENTER

Mr. BEVILL. As for the Environmental Research Center, maybe you would like to comment on that and give us what your plans are for the future.

Mr. CROWELL. Okay. Well, let me make a couple of comments first, if I may, Mr. Bevill.

In response to Mr. Knollenberg's question, I was talking primarily about the power program.

Mr. BEVILL. Yes.

Mr. CROWELL. But we are here today requesting assistance from the committee on sunsetting two programs.

POWER PRODUCTION

Mr. BEVILL. Yes. Let me interrupt on that point.

I think it is important to make the point that you are on your own—it is not costing the Government one penny for you to operate the power that you manufacture and sell in the TVA area.

Mr. CROWELL. That is correct.

Mr. BEVILL. You are talking about selling and furnishing electricity to 8 million customers.

Mr. CROWELL. That is correct.

Mr. BEVILL. And as a matter of fact, you bring a check to the Federal Government every year.

Mr. CROWELL. That is correct also.

Mr. BEVILL. I wonder how many Federal agencies we have in existence now that do that.

Mr. CROWELL. I don't know of any that return any money.

Mr. BEVILL. I don't know of another one.

Mr. CROWELL. You know, as you mentioned, Mr. Bevill, we return to the Government pretty close to the amount of money that the Government appropriates to us through this committee, and so it is—you know, if you look at it strictly from a bottom line standpoint, the taxpayers are not—are not contributing very much to the TVA, if you look at the contribution we make back as a part of our power funds.

Mr. BEVILL. So actually, you have consistently continued to make cuts and to improve, and, frankly, I wish our Federal Government operated as efficiently as the TVA is operating now. I think that it would be commendable, and I don't think we would be having to cut education and some of these other programs here that we need in order to balance the budget.

Mr. CROWELL. I appreciate you saying that.

Mr. BEVILL. I did want to make that point. So we are not talking about any cost to the Government as far as power is concerned, because the power is serving 8 million people without one dime of cost to the Federal Government.

Mr. CROWELL. That is right.

Mr. BEVILL. And not even stopping there, it is paying back what it borrowed to start the project.

Mr. CROWELL. That is also correct.

Mr. BEVILL. So now if it works don't fix it. That sort of applies, except certainly you want to keep making changes and keep improving, as you have been doing. But to do away with TVA would just be unthinkable.

Mr. CROWELL. Yes. I agree with that.

ENVIRONMENTAL RESEARCH CENTER

Mr. BEVILL. Now, getting back to the program that we are talking about here today, if you will respond to my question there about the Environmental Research Center.

Mr. CROWELL. Okay. What we are proposing here—and we will have a more detailed proposal for the committee in the next few days about that—what we are suggesting is that if the committee will work with us and provide $17 million in funding next year, that we would then be back to request $6 million for the next 2 years, 1998 and 1999, and then we would have no request after that.

We believe that the Environmental Research Center has great potential to attract customers for waste management and for air quality problems that industry and others confront and that we believe that we can undertake a marketing program that will make the center a viable and very strong entity but one that does not require any subsidy or any Federal funds to do that.

So what we are simply asking for is help from the committee to try to get us into a transition or phaseout program for ERC. We are also doing the same thing on economic development. We are asking the committee for $16 million this year, $10 million the next year, and then $6 million the year after, and then there will be no further request for economic development funds.

We certainly understand the pressures on Congress of trying to fund a lot of programs. We know that there is a great deal of interest in Congress and the administration to balance the budget in 7 years, and our hope here is that we could get support from the committee to do an orderly phaseout by 1999 of those two programs.

It is—I know it is up to the committee to determine the funding levels each year, but I am simply here suggesting and hoping that the committee will work with us on a phaseout as opposed to—as opposed to zeroing out funding abruptly, and then we have the difficulties of maintaining partnerships and contracts we have with others.

So that is a long answer to your question, Mr. Bevill, but I hope that covered the point you wanted me to make.

Mr. BEVILL. Will you be able to get your proposal that you referred to there—is it possible you might get that in here for the record within the next 2 or 3 days? I believe the 30th is the deadline.

Mr. CROWELL. How long will the record be open? Two days?

Mr. BEVILL. The law requires that you report by the 30th, but we can get it into the record within 5 days. You can get it into the record in five days.

Mr. CROWELL. We can do 5 days, I am fairly confident, Mr. Bevill.

Mr. BEVILL. To get it in the record, that is really what I had in mind.

Mr. CROWELL. It is in draft form now and being reviewed, and we want to be sure that when we submit it, that it is accurate and that it meets the expectation of the committee, and if you can give us 5 days, we will do our very best to make that deadline and get it in here for the record.

Mr. BEVILL. Fine. All right.

Mr. CROWELL. Okay. I believe we can do it in 5 days.

Mr. BEVILL. Okay.

Mr. CROWELL. We will turn to and get it done.

[The information follows:]

Report to the Congress of the United States
A Preliminary Plan for Funding
TVA Environmental Research Center
Tennessee Valley Authority
March 30, 1996

Purpose. This report is in response to Public Law 104-46-November 13, 1995, Energy and Water Development, Appropriations Act, 1996, whereby "The Tennessee Valley Authority shall, not later than March 30, 1996, submit to Congress a preliminary plan for funding the Environmental Research Center from sources other than direct appropriations to the Tennessee Valley Authority after fiscal year 1996."

Estimated Funding Profile
TVA Environmental Research Center

Funding Source	1995 Actual	1996 Estimate	1997 Estimate	1998 Estimate	1999 Estimate	2000 Estimate
TVA Appropriations	61%	52%	47%	21%	18%	0%
Other Sources	39%	48%	53%	79%	82%	100%
Total	100%	100%	100%	100%	100%	100%

Preliminary Plan. The plan consists of three phases: (1) Actions already taken; (2) Current Actions; and (3) Future Actions. Important considerations that influenced the plan follow these phases.

Phase I
(Actions Completed before Fiscal Year 1996)

- Discontinue fertilizer research and development. This process began in 1988 and ended in 1990.
- Realign the Center's research and development agenda with pressing environmental problems that most affect the private sector's ability to sustain economic growth and to convert investments to jobs and industrial development. Within this context, ensure Center programs form a strong foundation for sound scientific approaches to natural resource management that provides practical benefits well beyond the Southeastern United States.

- Focus work on four primary areas, based on preliminary environmental needs assessments:
    1. **Atmospheric Sciences**, with special emphasis on urban air quality attainment and ground level ozone prevention;
    2. **Biotechnology**, using bio-organisms to clean soil, and using organic air filters to clean industrial emissions;
    3. **Land and water pollution prevention** through use of constructed wetlands as industrial wastewater filters, closed loop industrial technologies, and non-point source pollution prevention and mitigation strategies; and
    4. **Contaminated site remediation**, concentrating on disposal of hazardous chemical wastes such as munitions, solvents, and polychlorinated byphenals (PCBs).

- Re-define Staffing Requirements. Since 1990, half of the employees that conducted general environmental research no longer are employed by TVA. The remainder are employed in other parts of TVA or have converted to the Center's four environmental research and development areas.

Phase II
(Current Actions)

- Combine environmental research/development and environmental services into an integrated business entity.

- Design, re-engineer, and employ business-oriented processes and provide the attendant organizational infrastructure that supports these processes.

- Network with public and private institutions, industry segments, and governmental entities to assess the future environmental markets. Based on this input, perform market opportunity analyses to identify high potential markets.

- Match high-potential markets requiring new technology solutions with the Center's core competencies to determine potential markets and better target the Center's technology development posture for the future.

- Implement organizational culture change. This includes rigorous review of all Center programs to ensure programs and projects are oriented toward a greater, paying customer orientation. Programs and projects have been and continue to be rated using business-oriented screening and evaluation criteria to determine:
    1. Projects that stand alone, using no appropriated funds;
    2. Priority of re-scoped projects which still rely on some/all appropriated funds;
    3. Projects to wrap up (no identified market).

- Attain access to capabilities across other TVA organizations and external entities through strategic partnering alliances to enhance business capture and to fill gaps in critical expertise.

Phase III
(Future Actions)

- Continue organizational culture change processes that move scientists and engineers from a research profile which predominantly serves the public at large, with benefits spread widely across the populace, to one which predominantly serves "willing and able to pay" customers and partners, where benefits are captured largely by the direct customer/partner.

- Develop a longer-term strategy that sustains the Center's high value, high margin research, technology, and services. This strategy is critical to preclude the Center from becoming a business entity that provides low value, low margin "commodity" services.

- Expand external Center environmental business of $12 million (gross revenues) in fiscal year 1995 to over $30 million over the next five years. The following table provides a comparison of relative/expected budget status for the TVA Environmental Research Center from fiscal year 1995 to fiscal year 2000.

Considerations. Significant background considerations for the plan include:

- **Current Mandates**. TVA is mandated by numerous federal and state laws and regulations concerning environmental compliance which includes the **Resource Conservation Recovery Act (RCRA) Corrective Action Program**. This program addresses the cleanup of contaminated sites at the Environmental Research Center. The site cleanup includes a web of abandoned production facilities and buildings that handled and deposited hazardous and toxic chemicals (munitions, solvents, PCBs, etc.) for nearly 20 years before, and for over 50 years since, TVA creation. Present projections require continual federal appropriations through Fiscal Year 2001 to allow time for this cleanup. Future site cleanup costs are projected to be over $19 million (includes $15.2 million for RCRA), and there also is a possibility that the Environmental Protection Agency could require perpetual monitoring for the RCRA corrective action project after completion of the Center cleanup efforts. The annual cost for this monitoring could be as high as $100,000 annually.[1]

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[1] Funding requests for this effort will be included in the Water and Land Management budget category after FY 1999.

- **The Center - A Unique Research Resource**. The Center is unique in its ability to improve scale-up technology from bench scale to pilot scale to demonstration and commercial, or field-scale settings. Over 300 patents (with over 700 licenses granted from these patents) have been produced by the Center with this research and technology development path.

- **Job Retention and Business Growth**. Rapid reduction in Center funding would endanger the Center's future and its new business growth potential. Sufficient time is needed to:
    1. Develop a customer base outside of direct federal appropriations to the Center;
    2. Ensure that business capture and development activities reach a level that can sustain a critical mass of technical competency at the Center;
    3. Protect the public investment in the vast scientific infrastructure at the Center;
    4. Provide time to adjust skills and expertise toward alternate scientific ventures.

- **Non-Duplication Efforts**. The Center participates in the White House Office of Science and Technology Policy's Committee on the Environment and Natural Resources - a committee whose purpose is to ensure non-duplication of federal environmental research investments.

- **Strategy Elements**. Early strategic posturing suggests a winning Center strategy that:
    1. Grows internal business through partnering agreements;
    2. Moves out on the unique opportunities for immediate action (and this now is happening);
    3. Grows immediate business through existing federal government relationships through strategic partnerships with the Department of Defense, Department of Energy, Environmental Protection Agency, National Oceanic and Atmospheric Administration, and other agencies;
    4. Seeks commercial opportunities through strategic alliances with private partners;
    5. Targets international businesses that leverage TVA's existing reputation; and
    6. Develops synergistic opportunities with and for all TVA business activities.

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Mr. BEVILL. All right.

NUCLEAR POWER OPERATIONS

Now, actually, you are the largest operator of nuclear power in the world, aren't you?

Mr. CROWELL. Well——

Mr. BEVILL. I am just asking. I guess France would be ahead, I guess.

Mr. CROWELL. Well, in the world, France would be the top, because over 70 percent of their electricity comes from nuclear, and so we would not be——

Mr. BEVILL. But are you the biggest operator of nuclear plants in the country?

Mr. CROWELL. No. I think as far as install capacity, sir, I think there are some others. Perhaps Commonwealth Edison may be a little larger on the nuclear side.

We are the largest generator of electricity through all of our sources of generation, which is hydro, fossil, and nuclear. So we are the largest generator if you take all three fuel sources.

Mr. BEVILL. Yes. That is good. That is what I wanted to know. I was trying to get that cleared up.

Now when will the Watts Bar plant that you mentioned going to be put back in operation? When will it get back in full power operation?

Mr. CROWELL. Well, sometime this spring. It is in the testing phase right now, which, as you recall from Operation Browns Ferry and others, it takes several months to go through all the testing required by the NRC to get to 100 percent power and commercial operation.

This morning the plant was running at 20-something percent, a little over 20 percent power today. But it is still in the testing phase, and the plant will be up and down over the next several weeks.

So I guess the short answer to your question, Mr. Bevill, is that this spring we expect to be through the testing phase and be at full commercial operation.

Mr. BEVILL. That is good.

LAND BETWEEN THE LAKES

And would you now touch upon where we are on the Land Between The Lakes? What are the plans on that? What is the future?

Mr. CROWELL. The future for Land Between The Lakes, we have a goal of being 80 percent self-sufficient at LBL by the year 2000, and we are still on track to do that.

Right now, this year, we generated about 36 percent of our operating costs from revenue generated through fees or timber sales or the other activities that we have that produce the dollars for us. So we are on track right now to go to 80 percent.

We have some proposals which are being looked at by the public now. The goal is 80 percent. We want to be sure we have ample opportunity to get public input on what we are doing at LBL to be sure that whatever we do can be supported by the people who live there and can be supported therefore by the Members of Congress whose constituents are part of LBL and part of the surrounding areas.

So that process is ongoing and on track, and we feel very good about the prospects of generating more funds there.

Mr. BEVILL. So your plans really are to, in effect, privatize the—I am not going to use that word "privatize" because I am getting into another field here.

Mr. CROWELL. What about self-supporting.

Mr. BEVILL. Let's make it self-sustaining. Self-sustaining to get on the right track here.

Mr. CROWELL. Self-sustaining, right.

Mr. BEVILL. Well, you have covered the environment. I think that covers it. I may have some more questions to submit for you to answer on the record later, Mr. Chairman.

So at this time, I think I will close. We are running out of time here.

MR. FRELINGHUYSEN'S OPENING REMARKS

Mr. FRELINGHUYSEN. Thank you, Mr. Bevill.

I have a number of questions. First of all, a specific one.

CUMBERLAND RIVER OPERATIONS

You stated a few minutes ago, Mr. Crowell, that a half a billion dollars could be saved if the TVA assumed operational responsibilities for the Corps' projects along the Cumberland River. Would you please tell me how you plan to save those types of dollars and detail that?

Mr. CROWELL. We had a study done which I would be pleased to supply for the record. The savings that are anticipated are based on simple efficiencies and the way that you operate those facilities. It is a 5-year figure.

Mr. FRELINGHUYSEN. You are suggesting that you would be more efficient than those who presently have those responsibilities?

Mr. CROWELL. I don't think there is any question about that. I think we would be.

Mr. FRELINGHUYSEN. And you can detail for the committee——

Mr. CROWELL. Yes, we can. Certainly we can.

Mr. FRELINGHUYSEN [continuing]. A half a billion dollars' worth of savings?

Mr. CROWELL. We can detail savings approaching that number, and we would be very happy to supply them. We will also be able to do that using the Corps of Engineers' numbers in doing that. We would be very happy to do so.

Mr. FRELINGHUYSEN. We would appreciate that. We will be having you submit that to the committee.

Mr. CROWELL. That actually would be very helpful to us because we—as I said, this is a 1990 Department of the Army report that suggested that. This was not TVA's idea to start with. We have simply been responding to others who have suggested that we comment on the 1990 Army report. This was a report that the Department of the Army itself suggested and using the Corps of Engineers' numbers—we have been able to document savings if we operated that system.

Mr. FRELINGHUYSEN. All right. If you could provide that for the record.

Mr. CROWELL. Absolutely. We would be very pleased to do so.

[The information follows:]

TVA estimates that the transfer of the Cumberland River dams to TVA will save about $500 million in appropriations over 5 years. The savings would come from repayment of the outstanding federal debt of about $166 million on Cumberland River hydropower plants by TVA; annual savings of about $50 million from assumption of hydropower operations and maintenance costs by TVA's self-supporting power program, and efficiencies in land management, reservoir operations, and administrative functions; and reductions in capital expenditures of about $85 million over 5 years for hydropower plant rehabilitation and dam safety improvements.

To accomplish these savings, TVA will apply its knowledge and experience from nearly 10 years of streamlining and efficiency improvements to hold power rates constant. The potential efficiencies are obvious. TVA has about 1100 FTEs engaged in hydropower, river management, engineering, construction, and overhead activities on the Tennessee River, including 54 dams and associated lands and facilities. The organizational chart for the Nashville District of the Corps of Engineers has about 700 FTEs focused on hydropower, river management, engineering, construction, and overhead activities on the Cumberland River, including just 10 federal dams. TVA has significantly fewer FTEs per dam than the Corps, i.e., 20 FTEs per dam for TVA compared to 70 FTEs per dam for the Corps.

BUDGET INCREASES

Mr. FRELINGHUYSEN. I have some general questions relevant to your budget.

As you are aware, we heard from the Appalachian Regional Commission prior to your arrival, and they have submitted a budget which is basically identical to what we did last year.

Why is your budget going from 109 to 120? You said in your statement that the TVA is responsive to fiscal realities facing our committee and the Nation, but I don't see how a 10 percent increase recognizes what we were trying to set down last year, which is some parameters on operating with fiscal responsibility.

Mr. CROWELL. Let me detail——

Mr. FRELINGHUYSEN. Where does the 10 percent come from, if in fact everybody else in Washington is living with what they had last year?

Mr. CROWELL. Let me detail what is new in there. I think that is the question you are asking, is, what are the increases? There is 4 million in there for Chickamauga Lock, which I covered in my testimony, the fact that the lock is in some serious difficulties and might be closed in 10 years.

Mr. FRELINGHUYSEN. That money is for a study; is that right?

Mr. CROWELL. For an assessment of what to—how to approach.

Mr. FRELINGHUYSEN. What would you anticipate that lock would cost if it had to be rebuilt?

Mr. CROWELL. Between 250 and 300 million, probably somewhere in that area.

So the assessment, the money we are asking for, is to make sure those numbers are the most accurate numbers and that that is—to give us some idea of how to approach the revitalization of that lock or the construction of a new one.

So the $4 million is an assessment and a study of how to go forward with solving that serious problem.

Now, there is $2.5 million in there for dam safety in our budget, because we operate—as I said, we have 54 dams that we operate, and we have to be very concerned about the safety aspects of that.

So $2.5 million is for dam safety; $2.1 million is for recreation operation, maintenance, and development. This is maintenance that had been put off in our recreation areas that needs to be addressed; $1.2 million of the additional request is to identify areas where there has been encroachment on Federal property and to try to resolve those issues; $700 million is an increase for water quality to handle concerns at Pickwick and Wilson Dams. That has really been driven by citizens in the area who want some assistance in trying to improve the water quality. And then there is a half a million dollars in the budget to help us with accessibility to TVA facilities from the standpoint of permitting—meeting Federal standards and guidelines on handicapped access.

So those are roughly the categories in which the new funds are being placed.

Mr. FRELINGHUYSEN. Is there no way those funds could have been absorbed by what we already give you?

Mr. CROWELL. Well, we don't see how we can do that without suffering in some other area, obviously.

Mr. FRELINGHUYSEN. Our responsibility here and your responsibility is to make some tough decisions and to make some priorities. There is no way you felt that you could live with the resources that we gave you last year, so you had to come in with a 10 percent increase.

Mr. CROWELL. We felt that in order to do the job well we needed this additional funding to do it.

I might point out that the year before last we had $142 million. The committee gave us substantially more money, and the reduction last year was close to $30 million in our program. So we were cut substantially last year, and we are simply trying to proceed here in a way in which we can fulfill our responsibilities and be able to be successful in doing that.

Mr. FRELINGHUYSEN. We did make some reductions, and I thought we sort of set you on the road to self-sufficiency. I am not sure that is actually achievable. I have some questions about the process.

BUDGET DOCUMENTATION

You sent to the committee this budget program?

Mr. CROWELL. Yes.

Mr. FRELINGHUYSEN. It is interesting to me. From what I understand, you sent to the Office of Management and Budget something about three times bigger. Why does the committee get this and OMB get that?

Mr. CROWELL. Well, the committee is certainly welcome to whatever we submit to anyone, including OMB, but the process we have to go to OMB to get their determination on what budget——

Mr. FRELINGHUYSEN. You said earlier that one of the most important things is regular communication between TVA and this committee. From what I can gather, this committee and its staff have been seeking detailed information on the TVA for some months now. Isn't that the case? And why would the OMB get this and we get the smaller version?

Mr. CROWELL. Well, the process we go through, Mr. Chairman, is that we don't decide what our funding level is going to be when we come before this committee. We are given that number by OMB. So obviously we give them—we have to go through the process of them looking at whatever requests we have and making a determination in the President's budget what he is going to allocate for TVA.

So the material that is submitted to the committee is after OMB has given us directions on what we are permitted to come here and ask for.

Mr. FRELINGHUYSEN. But considering the keen interest of committee members and Members of Congress that represent the States that are under the TVA's umbrella, surely the detailed information is something which Congress has every right to review and consider.

Mr. CROWELL. Certainly.

Mr. FRELINGHUYSEN. The nice thing about this committee is that every committee member is actively involved in defending their backyard, and I think that is a very healthy thing. But even our members—some at this table with me, too—would benefit from having that sort of detailed information. I do think it is odd that OMB gets this and we get a smaller version.

Mr. CROWELL. Well, let me apologize, Mr. Chairman. It is my desire that this committee get all the information that it wishes and all the information we submit to anyone elsewhere, including OMB, and I can assure you that if you will be patient with us, that we will do a much better job in the future of being sure that you get the information—the committee gets the information that they want.

And I do want to apologize for any misunderstanding that we are giving OMB information that is not forthcoming to the committee. That is not my desire to do that.

Mr. FRELINGHUYSEN. We are going to take a brief recess while Mr. Bevill and I go vote, and we look forward to being back here and directing some more questions to you.

The committee will stand in a brief recess.

[Recess.]

Mr. FRELINGHUYSEN. The meeting will come to order.

Apologies for the brief hiatus, Mr. Crowell.

Mr. CROWELL. That is quite all right.

ENVIRONMENTAL RESEARCH CENTER AND ECONOMIC DEVELOPMENT

Mr. FRELINGHUYSEN. TVA has identified its essential appropriated services as those that, in the first order, are mandated by State and Federal laws; secondly, must be implemented to ensure the safety of the public; three, provide for the stewardship of $5.2 billion investment. Into which of these three categories do economic development and the environmental research center fall?

Mr. CROWELL. I am trying to remember the list you just read, Mr. Chairman. They are separate programs and do not fall in the stewardship category.

Mr. FRELINGHUYSEN. Are they mandated by State and Federal law?

Mr. CROWELL. No, they are not.

Mr. FRELINGHUYSEN. Must they be implemented to ensure the safety of the public?

Mr. CROWELL. No.

Mr. FRELINGHUYSEN. And in any way are they related to the provision for the stewardship of a $5.2 billion investment?

Mr. CROWELL. No. And I might add that that is—you know, we are sitting here proposing the elimination of those two programs. We certainly would not be proposing that if we thought there was some difficulty either with regulations or with safety or any questions like that, the operation of the stewardship functions. So they are outside that bound, and that is why we are suggesting that they be eliminated.

Mr. FRELINGHUYSEN. And the chronology for that elimination? Some of us wanted to do it up front last year; I will be quite frank about that.

Mr. CROWELL. I understand that, and, as I said in my testimony, I understand the pressures in trying to find money to fund necessary programs.

What I am simply asking the committee for is help in an orderly transition so that our partners in the economic development programs and other activities will be on notice and therefore will have some opportunity to make some adjustment to the fact that we will not be participating with them in the future.

Now, on the Environmental Research Center, we believe that given a transition period we can make that self-sustaining, and therefore have an operation that can go forward and do a lot of good but not require Federal dollars. But if you were to zero that program out next year, I don't believe that we would have any chance at all of making it self-sustaining.

So, it is really a question in one case of being able to be successful in the future without Federal funds and the other case of just being an orderly transition.

ENVIRONMENTAL RESEARCH CENTER

Mr. FRELINGHUYSEN. To a certain extent, you admitted last year that the Environmental Center is somewhat duplicative of what the Environmental Protection Agency provides in a variety of its programs.

Certainly, when I had the opportunity to question Administrator Browner of the EPA, she basically said that there was not a lot of communication between the TVA and the EPA.

Mr. CROWELL. Well, I am not sure that I said last year that it duplicated the EPA, Mr. Chairman, but we were last year in the midst of looking at the transition plan to take the center to zero funding by 1999. So we were interested in making it self-sustain for some time and have been interested for some time, and I believe that came up last year also.

TVA MISSIONS

Mr. FRELINGHUYSEN. A general question. I know Mr. Bevill has some questions and certainly wants to provide some of his insights.

This gets somewhat to what Congressman Knollenberg raised earlier relative to missions. You have acknowledged today and on a previous occasion that the early mission of the TVA was literally to tame the Tennessee River, improve soil conditions for farming, and improve the quality of life for a rural population.

Haven't, to a great extent, these missions been accomplished?

Mr. CROWELL. Well, obviously in flood control and navigation, we have solved some serious problems there, but there is a continuing need to manage the river in order to prevent that from recurring. But still, the region still lags about 18 percent behind the national average on per capita income. So while we have been tremendously successful, we certainly have not completed the job that was given to us originally in our mandate.

EMPLOYMENT LEVELS

Mr. FRELINGHUYSEN. Getting to some questions that Mr. Knollenberg initially asked, published reports indicate that the TVA's early-out program reduced TVA's staff by approximately 2,500 employees—and you mentioned the figure—to 16,500 during fiscal year 1995. Are these reports accurate?

Mr. CROWELL. Yes, they are.

Mr. FRELINGHUYSEN. They are. What was the end-of-the-year employment level projected by the TVA for fiscal years 1996 and 1997.

Mr. CROWELL. 1996 is 16,500, and we project about the same for the following year. It is going to be in the same ball park.

Mr. FRELINGHUYSEN. And the total figures for appropriated and nonappropriated?

Mr. CROWELL. Appropriated side, about 1,400 employees. The rest are power employees.

Mr. FRELINGHUYSEN. And how many are they?

Mr. CROWELL. 15,000, roughly.

Mr. FRELINGHUYSEN. Has the TVA offered any early-out incentives for TVA appropriated programs?

Mr. CROWELL. Yes, we did, as part of our package.

Mr. FRELINGHUYSEN. Could you describe briefly the incentives and to what extent they were utilized?

Mr. CROWELL. 2,600 people total, and I will have to supply those who were in the power program and those who were in the appropriated program.

[The information follows:]

The reports indicating that approximately 2,500 employees accepted TVA's early-out program are accurate, with the actual number being 2,650. The number of TVA employees is driven by the business requirements of TVA and are not the direct result of an early-out program. On September 30, 1995, TVA had 16,400 employees.

The reports indicating that approximately 2,500 employees accepted TVA's early-out program are accurate. The actual number of employees that accepted the early-out program is 2,655, with approximately 2,455 being associated with the power program and approximately 200 being associated with the appropriated program.

The projected end-of-year employment levels for FY 1996 and FY 1997 are as follows:

	FY 1996	FY 1997
Appropriated Program	1,063	1,120
Power Program and Reimbursables	15,369	15,312
Total	16,432	16,432

During August 1994, TVA offered an early-out incentive program to employees, including employees in appropriated programs. Employees were given the opportunity to resign from TVA employment during the period August 15 through October 16, 1994, with an effective date of October 16, 1994, or later based on management's discretion. Employees leaving during this period had the following early-out incentive options:

- Option 1 - Employees could receive $1,000 for every year of TVA service in a lump sum payment. The payment would be a minimum of $15,000 and a maximum of $25,000, minus withholding taxes.
- Option 2 - Employees could receive a lump sum payment equivalent to 6 months of their salary, minus withholding taxes.
- Option 3 - TVA would add 3 years to the employee's attained age and 3 years to their creditable years of service in the TVA Retirement System for pension calculation purposes.

Mr. CROWELL. But basically the incentive was along the lines of credit for retirement, additional credit for retirement to take the early-out, and then a cash payout of 6 months of their salary. The retirement incentive and the cash payout were the primary incentives to get employees to take the early-out. It was very similar to what other organizations offer in early-out programs.

What we did was not uncommon among businesses in the U.S. to do the same things. In other words, our program was not necessarily innovative from the standpoint that no one else had done a similar early-out plan.

Mr. FRELINGHUYSEN. Mr. Bevill, do you have any questions or comments?

Mr. BEVILL. I think I will submit my testimony. I understand they are going to need to sweep this room for the classified testimony at 1 o'clock, and they will be doing the sweeping in about 10 or 15 minutes.

Mr. FRELINGHUYSEN. I hope to be through in short order.

Mr. BEVILL. I will put mine in the record, so I don't have anything else.

Mr. FRELINGHUYSEN. Thank you, Mr. Bevill.

TVA POLICE FORCE

Could you, Mr. Crowell, briefly discuss the creation and budgetary requirements of the TVA police force?

Mr. CROWELL. Yes. The TVA police force was created as part of the crime bill in 1994.

Now, what is interesting, we did not really create anything that new from this standpoint. TVA has always had armed security guards, because we have millions of visitors a year and property in parts of several States that must be protected. So TVA has always had an armed security force.

The armed security force has been empowered to carry firearms through various jurisdictions, and we sought Federal authority for two reasons. One is that it unified the authority and therefore permitted us to transfer people where we wanted to without worrying about new commissions. And secondly, it has, in fact, reduced the number of people carrying weapons substantially, because now we have the authority to move people around. It is more efficient.

We went to a system of armed guards and guards that did not have firearms, whereas before everybody who was a security guard had the power to carry a firearm.

So it has been very helpful from the standpoint of reducing the number of firearms in TVA. I would be pleased to supply for the record the reduction. The reduction has been quite dramatic. I think my recollection is, it may have been close to half the number of people used to be authorized to carry firearms and do not carry them now. So it has been very helpful to us.

Mr. FRELINGHUYSEN. For the record, I will be submitting a number of questions that relate to the police force. Please be good enough to detail all sources of funding for the police force.

Mr. CROWELL. I would be happy to.

[The information follows:]

The national crime bill that went into effect in September of 1994 gave TVA the authority to appoint federal law-enforcement officers. In September 1995, charter members of the TVA Police were sworn in, with the authorization to carry firearms, seek warrants and conduct investigations.

In addition to TVA Police Officers, unarmed Public Safety Officers serve TVA's fossil plants and Corporate offices, to control access and protect property. TVA Police officers receive extensive training in all areas of law enforcement, from nationally recognized sources including the FBI and the Federal Law Enforcement Training Center. They maintain law and order on all TVA property and at all TVA facilities.

Below is the FY 1996 budget for the TVA Police. For FY 1996, $4.3 million of the TVA Police was funded by appropriations. This figure is not a line-item in the TVA budget request. TVA Police support all TVA projects and programs, and these costs are allocated to the programs.

Total FY 1996 TVA Police Operating Budget	$15,427,000
Funded by:	
Appropriations	$4,320,000 (28%)
Power	$11,107,000 (72%)

Department	Employees	Budget
District Operations	230	$11,971,000
Operations Support	22	1,429,000
Risk and Emergency Management	17	1,192,000
Administrative Support	9	468,000
Director's Office	2	367,000
	280	$15,427,000

Total FY1996 TVA Police Capital Budget	$485,000
Funded by:	
Appropriations	
Power	$485,000
Capitol Budget	
Net Vehicle Purchases	$211,000
Radio System	$274,000

Mr. CROWELL. Let me make one other comment about the TVA police. The provision in the crime bill authorized the creation of the police force, but the guidelines on how we operate must be approved by the Attorney General.

So the TVA board does not approve guidelines for the TVA police. It is approved by the Attorney General. This includes questions about jurisdiction and other matters like that.

Perhaps the guidelines would be of some help to the committee that Attorney General Reno has approved for us.

Mr. FRELINGHUYSEN. Shifting gears, could you please identify the source and amount of all funds devoted to TVA advertising pursued in electronic and print media for the last 2 years?

Mr. CROWELL. Yes.

[The information follows:]

Ninety-nine percent of TVA's advertising, both print and television, is financed with funds generated from the production and sale of electricity. The advertising done to promote Land Between the Lakes is paid for by funds internally generated at LBL--from the sale of timber, public use fees, etc.

In fiscal year 1995, TVA spent a total of $5.9 million on all advertising efforts. This includes $4.4 million for corporate television ads, $1.4 million for *energy right*® advertising, plus about $150,000 for corporate print and LBL advertising. The *energy right*® programs were developed in cooperation with the distributors of TVA power and provide incentives for consumers to purchase energy-efficient new homes, manufactured homes, and heat pumps.

In fiscal year 1996, TVA's budget calls for expenditures of about $7.2 million for all advertising efforts.

Because the primary cost of advertising is media placement, and TVA's advertising is placed in Valley media markets, we estimate that 75 cents of every dollar we spend on advertising remain right here in the Valley.

The electricity business is becoming increasingly competitive with other fuels and other utilities, and TVA currently faces competition from natural gas and other power companies that would like to sell electricity to Valley consumers. TVA's customer base is not protected from the competition of surrounding utilities. We think it will become increasingly important to inform the public of TVA programs and the value of our products and services, which is what TVA's ads are intended to do. Just like any other business, we believe it is appropriate and necessary for TVA to position itself in the deregulated marketplace.

Research conducted in the Valley indicates that awareness of TVA as a power supplier has increased 167 percent since our advertising campaign began in 1994.

Mr. FRELINGHUYSEN. Give me a brief overview of what we are spending.

Mr. CROWELL. This year, as I recall, about $6 million on advertising. I would like to be able to sharpen this up for the record.

The advertising program is an effort to prepare TVA for deregulation and to create customer loyalty in an environment in which other utilities may be able to sign up our customers. And if you look at our competitors around us, there are several. One competitor to the north of us spends nearly twice that much on advertising. There is not a single utility around us that does not have a fairly aggressive advertising program.

Mr. FRELINGHUYSEN. But there is no utility like the TVA.

Mr. CROWELL. That is true, but in a deregulated environment, our customers may have the choice of going somewhere else, regardless of whether it is TVA or not.

If you look at advertising from TVA's standpoint, if you look at it from a short-term perspective, Mr. Chairman, it makes no sense to advertise, but if you look at it from a long-term perspective on what is going to happen in deregulation, it is imperative that we create the customer loyalty that is necessary to make us successful over the long term.

If it were not for the people around us advertising, then we would not have to do it either.

EMPLOYMENT BENEFITS

Mr. FRELINGHUYSEN. I have a number of questions that relate to the advertising budget. Do you have a bonus system——

Mr. CROWELL. Yes, yes.

Mr. FRELINGHUYSEN [continuing]. Which further benefits some of your TVA executives?

How does that work? How long has it been in existence, and why do you have a system like that where, in fact, in some cases the bonuses are greater than what would appear to be the base salaries?

Mr. CROWELL. The bonus system. My recollection is that it came in existence about 1988, when I became a member of the board.

But let me say this. The three directors here, our salaries are set as part of the pay cap, and we receive no compensation, not a cent above what is required statutorily.

But when the three of us look at trying to put together a team to be successful, and to be competitive, and to run a sophisticated power system, and to have someone who can manage five nuclear plants, we simply must pay enough to recruit top-notch people for that, because they are being recruited by private companies that pay substantial amounts of money.

Mr. FRELINGHUYSEN. Why don't you just pay them instead of giving them this bonus? And this is obviously a highly visible bonus system. Why don't you just pay them what they are worth if, in fact, you have to do that in order to compete with other entities?

Mr. CROWELL. Well, Mr. Chairman, that is a good question. But I guess your suggestion is that we call it pay instead of bonuses, I suppose.

Mr. FRELINGHUYSEN. I don't know what we call it, but all I know is that when such salaries are listed and bonuses are listed, I would think that this would be open season, and maybe it is done on an annual basis. I assume it is open season to sort of sow the seeds of skepticism about exactly how well managed the TVA is, and I think that is one of the reasons that we have these types of hearings.

Mr. CROWELL. Well, I appreciate your comments. It is with some consternation that this board has to read news accounts of people being critical of a bonus that we pay to our chief nuclear officer when we are sitting there knowing that if we try to recruit the same person somewhere else, we would have to pay more than we are paying this person. And if it were not for the fact that this person has loyalty to the TVA——

CONSULTANT CONTRACTS

Mr. FRELINGHUYSEN. You are paying people—and Mr. Knollenberg raised the question that was raised in the newspaper—you are paying for some expensive political and other types of advice. Is that true? You have something in addition to the bonus system. We have something on top of it, which is the hiring of various consultants.

Mr. CROWELL. Well, we have had consultants at TVA since the very beginning. Consulting is a cost-effective way to solve problems. There are only two avenues available to us to get the help that we need to manage TVA: Hire someone full-time and put them on the payroll or to hire them temporarily.

Mr. FRELINGHUYSEN. So you are saying for the record that there are in no way, people on your staff that share the type of expertise and depth of knowledge that these consultants have?

Mr. CROWELL. That is what I am saying. If we had the people on the staff that could give us the information that we require to solve a particular problem, we would not hire a consultant. That is correct.

TVA DEBT

Mr. FRELINGHUYSEN. One last question, because I think the chairman wants to see that the room is properly swept. I do have a number of questions for the record, and I think the Chair has a number of questions that he would like to submit for the record. Can you make a general comment on the TVA's debt obligations? What were they last year as opposed to what they are this year, and how you are controlling that debt? This is a management issue, and since we as taxpayers are investing a fair amount in the TVA, I would like to know how you control and manage your debt.

Mr. CROWELL. In fact, you do more than that, Mr. Chairman. The borrowing authority that TVA has is set by Congress, not by us.

Mr. FRELINGHUYSEN. The authority is set by Congress, but you are responsible for managing that debt. There is a difference between us setting the authority and your management.

Mr. CROWELL. I understand. And let me make a couple of points about the management. One is, if you look at the average interest rate we are paying now on our debt, which is about 7.5 percent, in 1988 that average was about 10.5 percent. So we have done a terrific job in refinancing our debt and getting the interest rate down to a level of 7.5 percent.

It looks like it is going to stay somewhere in that area, both short-term and long-term debt, for the foreseeable future, so we are very pleased with what we have been able to do in reducing the interest rate over the years.

This board has also made a decision to cap the debt in October 1997 at below the cap set by Congress. In other words, we are putting discipline in the system ourselves. We have no intention of going up to the level that Congress has set for us. I have no plans to come back up here and ask for any additional borrowing authority. We are going to cap it below that, and that is a self-imposed ceiling that puts discipline in the system.

Mr. FRELINGHUYSEN. This is proposed for 1997?

Mr. CROWELL. It is proposed October of this year for the next year's budget.

Mr. FRELINGHUYSEN. Why wasn't a cap imposed prior to that?

Mr. CROWELL. A cap was not proposed before then because we had a fairly significant nuclear construction program under way which we have discontinued. We had Watts Bar, which has just come into commercial operation. We had some projects that needed to be finished before we could cease adding to the debt.

In October, we plan to not increase the debt beyond that. We will generate our capital needs, which are substantial, with a system like this, from existing revenues in the future and do not intend to borrow money for that purpose after October.

Mr. FRELINGHUYSEN. The backing of your debt is very much linked to the full faith and credit of the United States Government because of the unique characteristics of the TVA?

Mr. CROWELL. No, it is not backed by the full faith and credit of the Government, but there is obvious implied backing, correct; that is right.

Mr. FRELINGHUYSEN. And that has a lot to do with how you are viewed in the marketplace. It is because you have had this long, healthy relationship with the Federal Government and this Congress.

Mr. CROWELL. I am pleased that you are calling it healthy, Mr. Chairman. And you make a very accurate statement.

Mr. FRELINGHUYSEN. Healthy is in the eye of the beholder. Some of us are trying to make sure that we put everybody on a slim diet.

Mr. CROWELL. I understand. But you made an accurate statement; it is the implied backing that makes it helpful to us, obviously.

Mr. FRELINGHUYSEN. Time is just about up.

Mr. Bevill?

Mr. MYERS. I will be happy to yield my time to Mr. Bevill.

Mr. BEVILL. I finished.

CONCLUDING REMARKS

Mr. MYERS. There will be a number of members to present questions, including my own. We do have to sweep the room. The next session, starting at 1 o'clock, will be a top secret proceeding in here, so we have to make sure that you didn't leave a listening device under your chair.

Looking at this group, I know that would not happen, but they want to do that for security. Thank you very much. And I apologize for having been gone most of the time. We are battling, trying to resolve some differences, keeping the country running, which doesn't really affect you, but indirectly it does.

Mr. CROWELL. I did want to say, you were out of the room when I finished my testimony, but I did express appreciation for the working relationship with you and your staff over the years in this committee and the courtesies you have shown us, and I wanted to thank you for that.

And since it is my understanding that next year when we testify you will not be here for us to appear before, but we do very much appreciate all the courtesy that you have—you have been tough on us, Mr. Chairman, but you have also been very courteous to us, and we appreciate that.

Mr. MYERS. Thank you.

Unfortunately, our job does require us to be tough. There is no other alternative, especially in this difficult time, with limited resources. We have to protect those resources—you understand that, you are taxpayers too. We try to squeeze the maximum out of every dollar.

Mr. CROWELL. We are going to miss you and Mr. Bevill.

Mr. MYERS. Mr. Bevill and I have worked together 26 years. Under his chairmanship, he extended great courtesy, and nothing went in the bill that we didn't agree on.

Mr. BEVILL. Chairman Myers accuses me of spending all the money and handing him the gavel.

Mr. MYERS. And there is some truth to that.

Thank you very much for your testimony.

Mr. CROWELL. Thank you for having us. I appreciate it very much.

Mr. MYERS. The committee will stand adjourned for 15 minutes.

[Questions and answers and TVA budget justifications follow:]

GENERAL

Mr. Myers. Your testimony states that TVA is, "responsive to the fiscal realities facing your committee." This responsiveness is not manifested in your fiscal year 1997 budget request, which seeks a 10% increase over the 1996 budget. How exactly is TVA responsive to the fiscal realities facing our committee?

Mr. Crowell. Our FY 1996 appropriation of $109 million was a substantial cut from the $138 million level of appropriations in FY 1995 for TVA. The increase requested is for critical public needs. In order to implement this reduction, it was necessary to defer dam safety activities and maintenance actions on recreation and public use areas. In addition, we have deferred modifications to meet access requirements of the executive order.

Four million of the $11 million increase is for a feasibility study and initial design work to replace the failing Chickamauga Dam, which is vital to keep 300 miles of navigable water in the Southeast open. Studies reveal that this lock could completely fail within 10 years.

Another $2.5 million is for dam safety, $2.1 million is for deferred maintenance at recreation areas, $1.2 million is for problems resulting from encroachments on federal property, $700,000 is for water quality improvements and $500,000 is for handicapped access improvements.

Significantly, we have announced plans to you for two major TVA programs being phased out of a need for appropriations by the end of the decade--our Environmental Research Center, and Economic Development. We are asking that you assist us in an orderly transition period.

In addition, we have increased the self-sufficiency of the National Recreation area, Land Between the Lakes to 36% this past year (much higher than other federal recreation areas) and are examining the potential of improving this percentage.

TVA is responsive to the fiscal realities facing the committee by:

- Classifying its budget into essential and non-essential
- Offering transition plans to phase out non-essential programs
- Planning to maximize the use of revenues to support LBL (rather than appropriations)
- Offering realistic budgets for essential O&M activities for the reservoir system

Mr. Myers. Last year, Congress took affirmative action to set TVA on a path toward self-sufficiency in various TVA programs. It appears, however, that we have failed to clearly communicate our intent. Why hasn't TVA requested any reductions from fiscal year 1996 levels in any of its major program categories?

Mr. Crowell. TVA has reviewed the major programs that are essential to carry out the responsibilities given to TVA as a Federal agency. These responsibilities include the operation of the Tennessee River system for flood control and navigation, the management of public lands, recreation, and agricultural and industrial development. Certain activities related to these essential functions, dam safety and other Federal asset maintenance activities, were deferred to FY 1997 when TVA's budget was reduced $29 million from 1995 to 1996. TVA, with this budget submission, has presented to Congress a transition plan to move the Environmental Research Center from direct appropriations to other sources of funding and a phase-out plan for Economic Development programs by the end of 1999. These plans provide an orderly phase out or transition to ensure prior public investment is not lost and benefits for the nation and region are maximized.

Mr. Myers. The budget justifications that TVA has submitted to the Subcommittee are woefully inadequate. The information provided is sketchy at best. The justifications lack both detail and substance. There are no details by object classification. There is no information about FTE levels. To the extent it is provided at all, revenue and expenditure information is insufficient to support your requests. On the other hand, fiscal year 1997 budget information provided by TVA to OMB is considerably more detailed. Why has TVA decided to withhold detailed budget information from Congress? Who is responsible for this decision?

Mr. Crowell. TVA was requested by the OMB to provide a prototype budget document to address the requirements of the Government Performance and Results Act of 1993 (GPRA). This document is to be used as a target for other federal agencies in the future and will continuously improve. TVA misread the level of detail Congress would like to see and provided a summary document similar to prior years. TVA provided the Energy and Water Subcommittee with the 1997 submission to the OMB immediately after we were informed the justification provided in the request was not sufficient. There was not an intentional act to withhold information by anyone in TVA. TVA is proud of the way programs are managed and in the future will provide detailed program information that address the requirements of GPRA.

Mr. Myers. TVA has identified its essential appropriated services as those that: (1) are mandated by state and federal laws; (2) must be implemented to ensure the safety of the public; and (3) provide for the stewardship of a $5.2 billion investment. Into which of these three categories do Economic Development and the Environmental Research Center fall? What activities are mandated by state law, and what is the nexus between state law and federal appropriations?

Mr. Crowell. Although Economic Development and the Environmental Research Center are not specifically included in the three categories mentioned, TVA's broad mandate for integrated resource management includes "fostering an orderly, physical, economic, and social development of the region." TVA considers economic development and environmental responsibilities essential in meeting this objective. TVA takes this role seriously and, although some of the issues that served as the foundation for TVA in 1933 may have diminished, others have surfaced that adversely impact the region and must be addressed in context of TVA's role. TVA also understands the need for reduced Federal government roles and spending and has, therefore, presented to Congress a transition plan for the Environmental Research Center and a phase-out plan for Economic Development.

TVA dams, lands, and associated facilities are subject to many state laws and regulations affecting environmental and safety-related activities. Examples include water quality and air quality permits for wastewater and emissions. TVA's presence and leadership of a multistate river system ensures the consistency of purpose for the region and mitigates conflicts between states that impact the nation. The cost of complying with these requirements is included in the funding request for stewardship of the Tennessee River system.

Mr. Myers. For each of the following programs and activities, please provide TVA's fiscal year 1997 request to the Office of Management and Budget: Land Between the Lakes, Economic Development, Environmental Research Center, and Chickamauga Lock.

Mr. Crowell. TVA provided a copy of the 1997 OMB Submission to the Energy and Water Subcommittee on March 21, 1996. The request totaled $140.5 million and was broken down into the following categories:

Water and Land Management	
River Basin Management	81.2
Limited Site Remediation	1.6
Land Between the Lakes	5.7
Total Water and Land Management	88.5
Chickamauga Lock Replacement	3.9
Economic Development	20.8
Environmental Research Center	27.3
Total	140.5

Mr. Myers. You have acknowledged that the early mission of the TVA was to tame the Tennessee River, improve soil conditions for farming, and improve the general quality of life for a rural population. Haven't these particular missions been accomplished?

Mr. Crowell. TVA's broad mandate for integrated natural resource management was accomplished by building a system of 54 dams that forever changed the natural environment of the Tennessee River basin. Yes, floods have stopped, soil erosion is in check, shorelands have been reforested and the general quality of life has improved across the Valley. But "taming" the river has not eliminated external impacts that require vigilant and visionary management of the river system.

The problems that the Tennessee Valley Authority was created to correct, have been replaced by new and different ones. Nonpoint source pollution and industrial toxins poison the water and the sediments in the Tennessee River and her tributaries - the drinking water source to 4 million people. Moreover, the multiple-use mandate for the TVA system is taxed like never before by intense population growth and competition for finite resource use and consumption.

The TVA Act states that TVA is responsible for the "proper use, conservation and development of the Tennessee River basin." The solutions of the '30s demand maintenance and infrastructure repair of the built environment that maintains the integrated system. The environmental stressors of the region have changed, but our obligation to respond to new challenges remains the same.

Mr. Myers. Published reports indicate that TVA's early out program reduced TVA's staff by about 2,500 employees to 16,500 during fiscal year 1995. Are these reports accurate? What are the end-of-year employment levels projected by TVA for FY 1996 and FY 1997? Please provide total figures for both the appropriated and non-appropriated programs of TVA. Has TVA offered any early out incentives for employees of TVA appropriated programs? If so, please describe these incentives and their utilization by employees. If not, what steps has the Authority taken to reduce employment in appropriated programs?

Mr. Crowell. The reports indicating that approximately 2,500 employees accepted TVA's early-out program are accurate. The actual number of employees that accepted the early-out program is 2,655, with approximately 2,455 being associated with the power program and approximately 200 being associated with the appropriated program.

The projected end-of-year employment levels for FY 1996 and FY 1997 are as follows:

	FY 1996	FY 1997
Appropriated Program	1,063	1,120
Power Program and Reimbursables	15,369	15,312
Total	16,432	16,432

During August 1994, TVA offered an early-out incentive program to employees, including employees in appropriated programs. Employees were given the opportunity to resign from TVA employment during the period August 15 through October 16, 1994, with an effective date of October 16, 1994, or later based on management's discretion. Employees leaving during this period had the following early-out incentive options:

- Option 1 - Employees could receive $1,000 for every year of TVA service in a lump sum payment. The payment would be a minimum of $15,000 and a maximum of $25,000, minus withholding taxes.
- Option 2 - Employees could receive a lump sum payment equivalent to 6 months of their salary, minus withholding taxes.
- Option 3 - TVA would add 3 years to the employee's attained age and 3 years to their creditable years of service in the TVA Retirement System for pension calculation purposes.

Mr. Myers. Please discuss creation and budgetary requirements of the TVA police force. How many FTE support police force operations? Are appropriated funds used to support this force? If so, how much? If so, why is this not indicated in the budget justifications?

Mr. Crowell. The national crime bill that went into effect in September of 1994 gave TVA the authority to appoint federal law-enforcement officers. In September 1995, charter members of the TVA Police were sworn in, with the authorization to carry firearms, seek warrants and conduct investigations.

In addition to TVA Police Officers, unarmed Public Safety Officers serve TVA's fossil plants and Corporate offices, to control access and protect property.

Below is the FY 1996 budget for the TVA Police. For FY 1996, $4.3 million of the TVA Police was funded by appropriations. This figure is not a line-item in the TVA budget request. TVA Police support all TVA projects and programs, and these costs are allocated to the programs.

Total FY 1996 TVA Police Operating Budget	$15,427,000
Funded by:	
Appropriations	$4,320,000 (28%)
Power	$11,107,000 (72%)

Department	Employees	Budget
District Operations	230	$11,971,000
Operations Support	22	1,429,000
Risk and Emergency Management	17	1,192,000
Administrative Support	9	468,000
Director's Office	2	367,000
	280	$15,427,000

Total FY1996 TVA Police Capital Budget	$485,000
Funded by:	
Appropriations	
Power	$485,000
Capitol Budget	
Net Vehicle Purchases	$211,000
Radio System	$274,000

Mr. Myers. Please detail all sources of funding for the TVA police force.

Mr. Crowell. Sources of Funding for the TVA Police are outlined below:

Total FY 1996 TVA Police Operating Budget	$15,427,000
Funded by:	
Appropriations	$4,320,000 (28%)
Power	$11,107,000 (72%)

Mr. Myers. Why was the force established and what is its mission?

Mr. Crowell. The Crime Control Act of 1994 which established federal law enforcement authority for TVA officers simply codified TVA authority under federal law and allows TVA to administer its duties in a specific manner with one standard and under one authority. This makes TVA's law enforcement authority comparable to other federal agencies with similar law enforcement responsibilities such as the National Park Service. The authority did not expand TVA's law enforcement role, but gave order to that which was already in existence and operated through a variety of state and county authorities throughout the Tennessee Valley states.

TVA is responsible for the protection of visitors to and public users of its lands and recreational facilities, as well as its employees, resources, and billions of dollars worth of facilities, equipment, and property. TVA is responsible for maintaining law and order on the following properties:

Dams and recreation areas	32
Metropolitan areas	3
Lakes	24
Shoreline around lakes	11,000 miles
Land surrounding lakes	250,000 acres
Muscle Shoals Reservation	2,400 acres
Land Between the Lakes	170,000 acres

Although the TVA Act provided the TVA Board of Directors authority to appoint persons to serve as public safety officers to protect visitors and properties, it did not specifically set forth statutory language granting law enforcement authority to those officers. TVA depended upon a patchwork of state commissioning laws and local county deputization to provide its public safety personnel with the authorities they needed to effectively carry out their tasks and responsibilities.

In the past, Public Safety officers operated under various or no law enforcement authority in the seven states in which they serve such as:

State	Statute
Alabama	Deputized by local county sheriff
Kentucky	State statute
Tennessee	State statute
Virginia	None
North Carolina	Company police (North Carolina Department of Justice issues commissions signed by attorney general)
Georgia	None
Mississippi	Deputized by local county sheriff

Many TVA dams, lakes, and recreation areas are in remote locations where law enforcement at state and county offices are severely understaffed. The county-by-county or state-by-state approach to law enforcement authority carried with it various administrative inefficiencies such as residency requirements which limited work areas and state bureaucratic approvals that had to precede transfers to new duty stations as well as multiple, varied training requirements that differed from state to state.

PSS functions at TVA were being provided by three separate organizations--corporate, fossil plants, and nuclear plants. The PSS functions performed in these organizations fall into two basic categories, industrial security and law enforcement.

Public Safety officers assigned to fossil plants and nuclear plants primarily provide for plant and asset protection and property access control. These officers do not have continuous interaction with users of TVA public areas. Consequently, they do not need law enforcement commissions, nor to be armed except as required by Nuclear Regulatory Commission requirements for certain nuclear security officers.

Officers assigned to TVA dams and lakes, recreational areas, and the Knoxville, Chattanooga, and Muscle Shoals metropolitan areas interact with the public daily. These officers serve as the primary law enforcement presence responding to criminal, civil, and emergency matters. The nature of their work requires them to be trained, armed, and commissioned as professional law enforcement officers.

Because of the differences between industrial security and law enforcement, a new organization, the TVA Police was created to provide for TVA's law enforcement responsibilities. They are the only armed and commissioned organization. Public Safety officers will continue to serve in an industrial security capacity. The TVA Police is intended to be a smaller, better trained professional law enforcement organization with higher standards to provide quality law enforcement service to the public and TVA.

Mr. Myers. Is the force properly constituted as a federal police force?

Mr. Crowell. Federal authority for the TVAP was established by statute in the "Crime Control and Law Enforcement Act of 1994." On September 6, 1995, law enforcement guidelines were approved by the U.S. Attorney General as well as qualifications and training standards for all TVA Police affairs.

Candidates for TVA Police officers must pass an initial selection process and meet higher law enforcement professional standards such as:

Education
- Associate degree in law enforcement or related discipline from an accredited institution, or
- Two years related law enforcement experience.

Testing
Successful completion of TVA Police Assessments
- Oral and written competency
- Psychological, medical, and drug screening
- Physical efficiency battery tests

Training
Successful completion of 11-week police training program at the Federal Law Enforcement Training Center (FLETC) in Glynco, Georgia.

FLETC class work includes:

- Behavioral science
- Enforcement operations and techniques
- Legal issues
- Security
- Firearms
- Defensive tactics
- Fitness
- Arrest and search and seizure techniques

In addition, each commissioned officer undergoes 40 hours of in-service training annually, and specialized training related to work assignments.

Former TVA Public Safety Officers who passed the screening, met the qualifications, and successfully completed the required training at the Federal Law Enforcement Training Center in Glynco, Georgia, were commissioned on September 12, 1995.

Mr. Myers. Is maintenance of the force demonstrably less expensive than contract security?

Mr. Crowell. The TVAP's primary function is law enforcement at TVA recreational facilities and public use areas for the protection of the public, employees, and property. Law enforcement responsibilities cannot be contracted due to training requirements, necessary interaction with the court systems and other law enforcement agencies. Industrial security functions are primarily performed by unarmed Public Safety personnel assigned to the facility where the security is performed. Public Safety industrial security personnel do not have the same training requirements, qualifications, nor interaction with the public as do TVAP officers. They are unarmed, do not have law enforcement authority nor commissions.

By establishing the TVA Police the following was accomplished:

Reduced number of TVA employees carrying arms by over 300.
Reduced officers engaged in law enforcement activities by 26.
Reduction of overtime by more flexible use of officers.
Eliminated in-service training for Public Safety Officers.
Reduced training costs.

TVA is currently conducting a study to determine whether a contractual agreement is preferable for industrial security functions.

Mr. Myers. Why, after sixty years, was it determined that a dedicated police force was necessary? Did a particular event or series of events motivate this decision?

In the late 1970s, the General Accounting Office (GAO) recommended that several agencies including TVA, seek federal law enforcement authority. TVA chose to continue operating in the fractional jurisdictional framework with its obvious limitations.

Criminal activities occurring on TVA reservations and recreational areas are reflective of criminal activities occurring in public. Such activities experienced on TVA reservations include drug possession, theft, breaking and entering, firearms violations, sex offenses, assaults, murder, fugitives, public intoxication, and destruction of property.

As criminal activities increase, TVA reservations become less desirable for the recreational use they were intended, such as camping, boating, picnicking, etc.

It was recognized TVA needed a more professional, higher qualified, and better trained organization to meet its responsibilities to the public. Local and state authorities lacked resources to devote full time attention to TVA reservations. A clear need for the authority to fulfill our responsibilities to the public users of our facilities, and the absence of a viable alternative motivated the decision to seek federal law enforcement authority.

It was recognized that:

- Services were inadequate.
- Authority was ambiguous or totally lacking.
- Operational guidelines were needed.
- Officers were not appropriately trained or qualified for law enforcement responsibilities.
- Increasing public popularity and attendance at TVA recreational facilities was indicating the need for enhanced, more professional law enforcement services.
- State and local agencies lacked the resources to provide the level of protection needed and could not devote the appropriate amount of services required by increased public use of recreational facilities.

The aggregate of factions clearly indicated that TVA's law enforcement and industrial security services should be redefined to enhance TVA's responsibility to the public.

Mr. Myers. Why did TVA consider it necessary or desirable to change its proposed budget structure for FY 1997?

Mr. Crowell. Our objective was simply to streamline the budget information. Land Between The Lakes is included in Land & Water Management because the same principles of land and water management apply to LBL as apply to all lands along rivers and streams. We have a consistent program of land and water management, and there is no reason for LBL to be separated out.

Mr. Myers. For each of the four appropriated programs (i.e., Stewardship and Land and Water; Land Between the Lakes; Environmental Research Center; and Economic Development), please provide the funding request broken down by object classification for fiscal years 1995 through 1997.

Mr. Crowell. Apppropriations by Cost Category for FY 1995, 1996, and 1997.

				Millions of $		
1995 Program	FTEs	Total	Labor & Benefits	Contracts	Mat./ Equip.	Other
Water & Land Mgt.	826	79.2	43.5	18.9	8.2	8.6
*LBL	116	7.3	3.8	1.9	0.8	0.8
Total Water & Land Mgt.	942	86.5	47.3	20.8	9.0	9.4
Chickamauga Lock & Dam	5	0.2	0.1	0.1	0.0	0.0
ERC	225	27.4	18.9	4.5	2.0	2.0
Economic Development	133	22.5	10.2	9.6	0.7	2.0
Total	1,305	136.6	76.5	35.0	11.7	13.4

				Millions of $		
1996 Program	FTEs	Total	Labor & Benefits	Contracts	Mat./ Equip.	Other
Water & Land Mgt.	670	71.5	39.3	17.7	9.0	5.5
*LBL	114	6.0	3.1	1.6	0.8	0.5
Total Water & Land Mgt.	784	77.5	42.4	19.3	9.8	6.0
Chickamauga Lock & Dam	5	0.5	0.1	0.4	0.0	0.0
ERC	178	17.0	11.7	2.9	1.5	0.9
Economic Development	96	16.0	7.5	5.8	0.3	2.4
Total	1,063	111.0	61.7	28.4	11.6	9.3

1997 Program	FTEs	Total	Labor & Benefits	Contracts	Mat./ Equip.	Other
				Millions of $		
Water & Land Mgt.	707	76.4	42.0	18.9	9.6	5.9
*LBL	114	6.6	3.4	1.8	0.9	0.5
Total Water & Land Mgt.	821	83.0	45.4	20.7	10.5	6.4
Chickamauga Lock & Dam	25	4.0	2.2	1.0	0.5	0.3
ERC	178	17.0	11.7	2.9	1.5	0.9
Economic Development	96	16.0	7.2	6.3	0.3	2.2
Total	1,120	120.0	66.5	30.9	12.8	9.8

* LBL FTE's reflect appropriated and nonpower funding sources.

Mr. Myers. Please provide a chart showing FTE levels for each appropriated program for fiscal years 1995 through 1997. Also show the FTEs funded by power proceeds and reimbursable services.

Mr. Crowell. The actual FTE levels for FY 1995 and the projected FTE levels for FY 1997 for each appropriated program are as follows:

APPROPRIATIONS	1995	1996	1997
Water and Land Management	826	670	707
LBL	116	114	114
Total Water and Land Management	942	784	821
Chickamauga Lock and Dam	5	5	25
ERC	225	178	178
Economic Development	133	96	96
Total Appropriations	1,305	1,063	1,120
Reimbursables and Power	15,311	15,369	15,312
Total FTEs	16,616	16,432	16,432

Mr. Myers. Briefly describe TVA's new "Weekend Academy" program, a joint pilot project with the Knox County school system to provide educational programs for inner city children living within three miles of TVA headquarters. How much money has been committed to this program in fiscal year 1996? How much is budgeted for fiscal year 1997? What are the sources of funding for this initiative?

Mr. Crowell. In support of TVA's Growth Oriented Goal, whereby TVA will "pursue growth and alliances that will add value to society" and the Employee Sensitive Goal "to attract and retain the most qualified employees" TVA provides leadership in piloting an educational enrichment program directed at economically disadvantaged students near TVA offices and downtown Knoxville. The pilot targets fifty students, grades 3-5, and ten high school students.

Objectives of TVA's Weekend Academy are:

- To contribute to the achievement of national education goals while creating a pipeline for workforce development
- To align with critical needs areas projected for TVA's workforce and future jobs
- To increase employability of Valley citizens
- To carry out TVA's corporate citizenship responsibilities, initially focusing on Knoxville
- To enrich and supplement school experiences in a way that stimulates excitement about learning
- To raise educational aspirations by exposing children to the link between school and economic success
- To help parents become more effective in assisting their children to achieve their potential

The Weekend Academy uses TVA facilities and volunteers from TVA and the community, to enrich student experiences. Programming examples include field trips, introduction to computers and other technologies, conflict resolution, public speaking, and community awareness. TVA's Weekend Academy is modeled after similar "business and school partnership programs" sponsored by some of the nation's most successful companies.

The budget for the 1996 pilot is $225,000 from non-appropriated funds. Given the nature of the pilot, projections for FY97 are yet to be finalized, but based on a successful effort in Knoxville, the program will expand to other cities in the TVA service area and include additional students. The funding will range between $250,000-$500,000.

Mr. Myers. Please identify the source and amount of all funds devoted to TVA advertising campaigns pursued in electronic and print media for fiscal years 1995 and 1996. If appropriated funds were used for advertising and public service campaigns, please describe in detail the purpose, message and extent of such campaigns. Have funds--appropriated for otherwise--been expended in order to build public awareness of, or public support for, the appropriated programs of TVA? What was the Authority's response to its receipt of a 1995 Harlan Page Hubbard Lemon Award, awarded for misleading and deceptive advertising?

Mr. Crowell. Ninety-nine percent of TVA's advertising, both print and television, is financed with funds generated from the production and sale of electricity. The advertising done to promote Land Between the Lakes is paid for by funds internally generated at LBL--from the sale of timber, public use fees, etc. No appropriated funds are used to pay for advertising.

In fiscal year 1995, TVA spent a total of $5.9 million on all advertising efforts. This includes $4.2 million for corporate television ads, $1.4 million for *energy right*® advertising, plus about $310,000 for corporate print and LBL advertising. The *energy right*® programs were developed in cooperation with the distributors of TVA power and provide incentives for consumers to purchase energy-efficient new homes, manufactured homes, and heat pumps.

In fiscal year 1996, TVA's budget calls for expenditures of about $7.27 million for all advertising efforts.

Because the primary cost of advertising is media placement, and TVA's advertising is placed in Valley media markets, we estimate that 75 cents of every dollar we spend on advertising remain right here in the Valley.

TVA has used both print and television advertising to build awareness of the many recreational opportunities in the Valley, at LBL and other locations. In 1995, two television commercials featured Valley residents taking advantage of TVA recreational sites. LBL uses print advertising in camping and tourism publications to make travelers aware of opportunities there.

The ad that received the Harlan Page Hubbard Lemon Award focused on TVA's low electricity prices and the fact that electricity prices in the Tennessee Valley are one-third below the national average. The ad was obviously meant to be humorous and did not promote the wasteful use of electricity. We believe that group's interpretation of the ad was misguided and narrow.

In fact, research conducted in November showed that TVA's low rates were the number one reason that customers in the Valley preferred TVA.

STEWARDSHIP AND LAND AND WATER

Mr. Myers. Has the Administration developed plans for TVA to assume operational responsibilities for dams along the Cumberland River which supply power to the Southeast Power Administration? If so, which unit or units of the Federal Government have developed such plans? What is the status of any such proposals of which TVA is aware? Please discuss the budgetary consequences of any such proposals. Have any studies been undertaken to ascertain the advantages of a takeover of TVA stewardship responsibilities by the Corps of Engineers?

Mr. Crowell. The Administration has not made plans for TVA to assume operational responsibilities for Corps of Engineers' dams on the Cumberland River. However, U.S. Army Audit No. EC 90-10, dated 15 March 1990, states that "the Federal Government could avoid annual interest expense and repay the outstanding Federal debt associated with hydroelectric facilities in the Cumberland River Basin through the sale or transfer of facilities to the Tennessee Valley Authority or non-Federal entities." When TVA became aware of the audit, it developed a proposal to transfer Cumberland River dams to TVA. This proposal was presented to the Corps of Engineers in December 1994 and to the Office of Management and Budget in May 1995. The proposal is being reviewed by OMB.

A full accounting of the budgetary implications of the proposal has not been made by OMB. TVA estimates that the transfer of the Cumberland River dams to TVA will save about $500 million in appropriations over 5 years. The savings would come from repayment of the outstanding federal debt of about $166 million on Cumberland River hydropower plants by TVA; annual savings of about $50 million from assumption of hydropower operations and maintenance costs by TVA's self-supporting power program, and efficiencies in land management, reservoir operations, and administrative functions; and reductions in capital expenditures of about $85 million over 5 years for hydropower plant rehabilitation and dam safety improvements.

TVA is not aware of any studies of the transfer of TVA responsibilities for the Tennessee River to the Corps of Engineers. TVA is confident that any such study would show that these responsibilities are more effectively and efficiently carried out by TVA. TVA management of the Cumberland River is not a new idea. It was recommended by the President in the 1940s, and supported by the "Report on the Physiographic, Economic, and Other Relationships Between the Tennessee and Cumberland Rivers and Between Their Drainage Basins (House Document No. 107, 79th Congress). It was also supported by Representative J. Percy Priest, for whom one of the Cumberland River dams was named.

Mr. Myers. Please describe the actions that TVA has taken in response to the directive in House Report 104-149 (accompanying H.R. 1905, the Energy and Water Development Appropriations Act 1996) to correct serious silt and debris problems at the Sinking Creek embayment on Fort Patrick Henry Reservoir in Sullivan County, Tennessee.

Mr. Crowell. To date TVA has identified four engineering alternatives and associated costs to correct the situation. These alternatives are being evaluated as part of the environmental assessment process that will be completed in early summer. Completion of the environmental assessment, which includes selection of a preferred alternative, is an essential step in obtaining the required U.S. Army Corps of Engineers permit and the State of Tennessee water quality certification. Plans are to initiate construction of the project as soon as all permits are obtained.

Mr. Myers. To what extent does the TVA engage in endangered and threatened species protection along the Tennessee River system? Please describe for the record TVA programs and resources devoted to species and habitat protection.

Mr. Crowell. Protection of threatened and endangered species across the Tennessee River system is a key element of meeting TVA's objective to protect and improve the environment of the Tennessee Valley. TVA's Regional Natural Heritage Program has developed and currently maintains a computer-assisted inventory of locations of endangered, threatened, and rare plants and animals; sensitive geological features; and natural areas in the region. This information is utilized in the review of system-wide projects and actions to ensure protection of threatened and endangered species.

TVA also develops and implements conservation and management strategies for protection of endangered and threatened species that occur in the Tennessee River Watershed. Toward that end, TVA has designated 77 areas on TVA reservoir lands covering approximately 10,000 acres as TVA Natural Areas, most of which protect endangered and threatened species and their requisite habitat.

Land Between The Lakes (LBL) has designated 42,500 acres as biosphere reserve core area to provide habitat for threatened and endangered species.

TVA has forged partnerships with a host of other federal, state, and private agencies such as the U.S. Fish and Wildlife Service; the states of Kentucky, Tennessee, Virginia, Alabama, Mississippi, and North Carolina; and The Nature Conservancy. These entities are also involved in endangered and threatened species protection in the Tennessee Valley and beyond. This cooperation allows TVA to avoid duplication and optimize resources among public agencies as reported to the U.S. Department of Interior on an annual basis.

TVA staff assigned to this work includes six FTEs. TVA has requested appropriations of $570,000 for this work in FY 1997.

Mr. Myers. Please provide for the record beginning-of-year and end-of-year employee levels for stewardship and land and water programs.

Mr. Crowell.

	FTEs					
	1995		1996		1997	
	Beg.	End	Beg.	End	Beg.	End
Appropriations						
Water and Land Management	1,028	942	942	784	784	821

Mr. Myers. TVA requests $4,000,000 in FY 1997 for repair and maintenance of Chickamauga Lock and Dam and for design of a new Chickamauga Lock. Please explain how the $4,000,000 would be allocated among different activities. How much, for example, would be devoted to design work?

Mr. Crowell. TVA has requested $4,000,000 for work on the proposed new lock at Chickamauga Dam. The funds would be allocated as follows:

Project Planning and Management (Including Funding Options)	$ 325,000
Subsurface Investigations	475,000
Physical Model Testing	400,000
Road and Utility Negotiations and Acquisition	350,000
Design	2,450,000
TOTAL	$4,000,000

An additional $2 million is being requested in the Water and Land Management capital budget for repairs to the existing lock.

Mr. Myers. TVA estimates that total estimated costs of a new lock and dam will be approximately $290 million. Aside from federal appropriations, what funding sources will contribute to this capital project? Will inland waterway trust funds be used? To what extent will local sources help satisfy funding needs? Please detail how the $290 million in total costs will be allocated among these various funding sources.

Mr. Crowell. The estimated fully funded cost of constructing a new 110 x 600-foot lock at Chickamauga Dam is approximately $290 million and the estimated Benefit to Cost ratio is 4.3.1. Because the projected benefits of the project accrue nationally and because navigation locks have traditionally been a federal responsibility, state and local funds have not been sought. The Inland Waterway Trust Fund (IWTF) currently has a balance of approximately $250 million and is essentially committed to other projects on the inland waterway system. Kentucky Lock, which was spearheaded by the U.S. Army Corps of Engineers, took 5 years to be approved on the IWTF Fund priority list and is not scheduled to be completed until 2008. Because of the significant deterioration of the lock we need to address the problem immediately. As part of our feasibility studies we plan to investigate alternative funding sources for Chickamauga Lock We would appreciate any help from the sub-committee in obtaining access to the Inland Waterway Trust Fund or obtaining funding from alternative sources.

Mr. Myers. Out-year funding for Chickamauga Lock and Dam is scheduled to peak in the year 2001 at $57 million. Does this represent appropriated dollars? If so, will TVA propose elimination of the other appropriated programs to create room for construction of this project within an increasingly constrained budget allocation?

Mr. Crowell. Appropriated funds are being requested for project costs. TVA will continue to request appropriated funds to carry out its other mandated stewardship responsibilities for the Tennessee River and its associated facilities and lands. As part of the feasibility study and initial design work, we will continue to examine alternative sources of funding.

Mr. Myers. What activities has TVA pursued to involve stakeholders and citizens in the development of plans for the Chickamauga Lock and Dam project?

Mr. Crowell. TVA has worked closely with all stakeholders in planning improvements at Chickamauga Lock. TVA has met with and surveyed the navigation industry in developing alternatives to resolve problems at the lock In accordance with National Environmental Policy Act procedures, TVA has conducted public meetings at all significant stages of the feasibility study process. Two public meetings were held in Chattanooga and about 90 individuals attended these sessions. TVA placed notices of the last public meeting in five regional newspapers; placed the Draft Environmental Impact Statement in the Chattanooga Public Library, mailed notices of the meeting to the known shippers, marinas, and public terminals; talked by telephone to all major shippers; made site visits to selected terminals; communicated TVA's intentions to professional associations and special interest groups; and contacted state, local, and federal department of transportation officials. TVA has also provided information on the issues through available news media and has met with all groups which have expressed an interest in the project.

Mr. Myers. How many FTE are associated with the TVA Clean Water Initiative? How much is budgeted for this initiative in fiscal years 1995 through 1997 and what is its source of funding? Please provide a description--including the function, cost, and TVA employment--of the TVA research center on Guntersville Lake. Please describe its source of funding and its relationship to the Clean Water Initiative.

Mr. Crowell. The Clean Water Initiative consists of River Action Teams and mosquito and plant management, and is jointly funded by appropriations and power revenues. Power revenues are used to pay for 24 percent of the cost of reservoir monitoring, and mosquito and plant management. Staffing and total budgets for the Clean Water Initiative for fiscal years 1995 through 1997 are as follows:

Fiscal year:	1995	1996	1997
FTEs:	67	72	79
Budget (000,000s):	13.2	14.9	15.2

The TVA research center on Guntersville Lake to which you refer is the former coal gasification site known as Murphy Hill. TVA has reclaimed the site from its condition when construction of the coal gasification plant was halted. A small portion of the site is used for Environmental Research Center experiments in biocontrols for plant management. In addition, the Clean Water Initiative uses a small portion of the site to raise native aquatic plants for transplanting to TVA reservoirs to control exotic (non-native) aquatic plants. The Joint Agency Guntersville Project was funded with appropriations and was conducted at the Murphy Hill site to study aquatic plant management control techniques. That project and all operations associated with it have been completed. There are no staff stationed at the Murphy Hill site and less than one FTE is associated with activities currently performed there.

Mr. Myers. How many staff biologists, scientists, and environmental specialists are employed by TVA stewardship and Land and Water activities? How does this compare to employment levels for these specialties at the Environmental Research Center?

Mr. Crowell. About 90 staff biologists, scientists, and environmental specialists are involved in the stewardship of the Tennessee River basin. About 30 staff with similar job titles are employed in research activities at the Environmental Research Center.

Mr. Myers. Please provide details regarding TVA River Action Teams. Who comprises these teams and what do they do? How much money is budgeted for these teams in fiscal years 1995 through 1997? How much of this total represents appropriated funds?

Mr. Crowell. A River Action Team is a small multi-disciplinary team of aquatic biologists, environmental engineers, and environmental education specialists assigned to one of 12 sub-watersheds of the Tennessee Valley. Six River Action Teams have been formed. The principal task of River Action Teams is to assess the water quality of TVA reservoirs and the rivers and streams that flow into them, and to build coalitions with regulatory agencies, community leaders, universities, business and industry, interest groups, and private citizens to develop and implement protection and improvement plans.

River Action Teams were formed because the public holds TVA accountable for improving water quality in the reservoirs it built. Good water quality is essential to achieving the full range of water uses of these reservoirs--not only navigation, flood control, and hydropower, but also water supply, recreation, and fish and wildlife habitat. River Action Teams refer pollution problems involving regulated wastewater discharges from business, industry, and municipalities to appropriate state and federal agencies. Instead they focus on the problems that regulatory approaches have been and will be unable to solve: water quality problems caused by nonpoint sources of pollution, such as erosion from abandoned mines and road cuts, and runoff from urban and agricultural areas. The solution requires regional cooperation and funding from multiple sources; River Action Teams bring these resources together to improve water quality in TVA reservoirs.

Scientific personnel previously assigned to Mosquito and Plant Management activities are being assigned to River Action Teams in FY 1997. After a year of training, personnel will be assigned to new River Action Teams which will increase the number of teams without increasing FTEs. Staffing and total budgets for the River Action Teams for fiscal years 1995 through 1997 are as follows:

Fiscal year:	1995	1996	1997
FTEs:	52	57	67
Budget (000,000s):	10.4	12.5	13.1

Power revenues are used to pay for 24 percent of the cost of reservoir monitoring performed by River Action Teams. About 95 percent of the total budget for River Action Team is appropriated funds.

ENVIRONMENTAL RESEARCH CENTER

Mr. Myers. Public Law 104-46 requires TVA to submit to Congress "a preliminary plan for funding the environmental research center from sources other than direct appropriations to the Tennessee Valley Authority after fiscal year 1996." That plan is due no later than March 30, 1996. What is the current status of that preliminary plan? Will we receive it within the next two days? Please describe the Authority's plans for funding the research center from non-appropriated funds after fiscal year 1996.

Mr. Crowell. The plan to address funding for the Environmental Research Center (ERC) from sources other than direct appropriations has been finalized and was submitted by the due date.

The plan provides an evolutionary process of: (1) past actions that phased out programs and readjusted staffing levels; (2) current actions that position the Center to a greater market orientation; and (3) future strategic actions to ensure Center long-term viability and protection of public investments.

The most crucial current actions are to align core competencies of the Center with high potential environmental market opportunities and to target the most pressing environmental problems that affect the private sector's ability to sustain economic growth. We are moving the staff from a research orientation to one that is service oriented using the technical capabilities to attract funding from sources other than TVA appropriations.

Mr. Myers. A draft preliminary plan for funding the center indicates that federal appropriations will be phased out over the remainder of this century. Obviously, this does not meet the statutory requirement to provide a plan for funding the center with non-appropriated funds after the current fiscal year. Will the final preliminary plan comply with the law?

Mr. Crowell. The plan specified in Public Law 104-46 asks TVA to " ... submit to Congress a preliminary plan for funding the environmental research center from sources other than direct appropriations after fiscal year 1996." TVA has submitted a plan that provides for an orderly transition to self sufficiency, including (in its best judgment), a realistic, expected funding status on a year-by-year basis. For example, if the Center is not provided appropriations in FY 1997, the plan suggests that at that time, the center, even by its best effort, would be only about 53 percent self-sufficient, but this profile is not without a great degree of risk. The plan suggests that rapid reduction in Center funding would endanger the Center's future and its new business growth potential. Sufficient time is needed for the Center to: (1) adjust to last year's funding cut of over $14 million; (2) develop a customer base outside of direct federal appropriations to the Center; (3) ensure that business capture and development activities reach a level that can sustain a critical mass of technical competency at the Center; (4) protect the public investment in the vast scientific infrastructure at the Center; and (5) provide time to adjust skills and expertise toward alternate scientific ventures. By decreasing the dependency on appropriated funding over a three-year period, the center has sufficient opportunity to develop new funding sources to support its programs, thus protecting the public investment. We believe that these actions comply with Public Law 104-46.

Mr. Myers. Although the fiscal year 1996 appropriation of $17 million for the Environmental Research Center represented a reduction of more than 50% from the fiscal year 1995 level, TVA management announced early in the fiscal year that no lay-offs at the center were planned. Does the center anticipate that the full amount of the FY 1996 reduction from the budget request will be recovered from other sources? If not, then please describe the impacts of the funding reductions. Is TVA committed to avoiding reductions-in-force at all costs?

Mr. Crowell. TVA is committed to minimizing the need for reductions-in-force, but as appropriations have been reduced or anticipated at the Center (in both current and real terms over the past years, TVA already has taken many steps to ensure budgets, skills, and workforce numbers are aligned. There was a 42 percent reduction in Center headcount of 472 from September 1992 to September 1995. This included involuntary reductions and reductions through early-out incentives. Current Center employment is roughly 250. Other measures were instituted to absorb loss of appropriations. For example, vacancies were put on hold, and a number of projects requiring significant non-personnel funds were immediately halted or re-scoped. Center scientists successfully re-negotiated projects not requiring TVA direct appropriations in order to,speed-up project deliverables and to employ staff affected by the funding reductions. An example is the work being conducted at Rocky Mountain Arsenal, Denver, Colorado, on nerve agent remediation. TVA also is renegotiating work mandated by numerous federal and state laws and regulations concerning environmental compliance which includes the Resource Conservation Recovery Act (RCRA) Corrective Action Program. This program addresses the cleanup of contaminated sites at the Center and includes a web of abandoned production facilities and buildings that handled and deposited hazardous and toxic chemicals (munitions, solvents, PCBs, etc.) for nearly 20 years before, and for over 50 years since, TVA creation. Finally, TVA has been successful in getting additional non-appropriated funding to support a portion of the workforce.

Mr. Myers. Please cite the specific statutory authority for TVA's operation of the Environmental Research Center. Explain how the performance of Global Climate Change and Sustainable Development research springs from this authority.

Mr. Crowell. TVA's Environmental Research Center (ERC) serves a number of functions, and the authority for its operation is related to each. The ERC provides in-house scientific services to both the TVA power system and to Water and Land Management. The power system reimburses ERC for the cost of services it receives. ERC also conducts the cleanup effort of the residual waste from the fertilizer manufacturing in which TVA was engaged for more than 20 years before, and over 50 years after, TVA creation. Finally, as part of TVA's responsibility to aid the proper use, conservation, and development of the natural resources of the region and foster its physical, economic, and social development under Section 22 of the TVA Act, ERC conducts various studies, experiments, and demonstrations to that end. Although much of this work is paid for by appropriations, the balance is viewed as valuable to specific entities, which reimburse TVA for the cost of conducting it. Services provided on a reimbursable basis at the request of outside entities also ensure that ERC's resources are fully utilized and thus reduces the level of appropriations needed.

TVA's research programs on Global Climate Change and Sustainable Development provide both national and regional benefits. These programs address issues of significant national interest and provide results that support TVA's stewardship mission and minimize pollutant inputs to the Tennessee River Valley.

The Global Climate Change research program is focused on the environmental impacts associated with the growth of short rotation woody crops for bioenergy production. TVA and its partners (DOE, Industry and Universities) are developing management practices, including beneficial use of waste materials, that will allow marginal farm land in the region to be utilized for bioenergy production while reducing soil erosion and ground water pollution.

Sustainable development is at the very core of TVA's mission. The successful marriage and reconciliation of economic development and environmental protection is the goal of the research program.

Mr. Myers. The budget request for fiscal year 1996 outlined how Environmental Research Center funds were to be allocated among seventeen discrete projects. This year's budget justification allocates the funds among only four broad categories of research. Why does TVA feel it is appropriate to provide even less detail than it did last year on the proposed use of research center funding?

Mr. Crowell. The Center has presented a preliminary plan for funding the Center from sources other than direct TVA appropriations from Congress. The Center has focused its efforts on four primary areas to assess future environmental markets. Based on input from public and private institutions, industry segments, and governmental entities, market opportunity analyses to identify high potential markets will be performed. After the initial analyses is completed in FY 1996, specific projects that have a high probability of attracting paying customers will be authorized. These specific projects were not identified at the time the budget request was submitted, therefore no project level information was available.

Mr. Myers. Please list, by source, all non-appropriated revenues budgeted for fiscal years 1995 through 1997. Taken alone, what level of effort would the FY 1997 revenues support in the coming year at the Environmental Research Center?

Mr. Crowell.

Nonpower Revenues	FY 1995	FY 1996	FY 1997
Mineral Rights	1.1	1.0	0.3
Fees and permits	0.7	1.0	1.0
LBL	2.6	3.6	3.7
Ocoee River Outfitters*	0.4	0.3	0.4
Interest Income	4.2	1.8	1.8
Miscellaneous (sale of assets)	3.3	1.6	0.8
Total	12.3	9.3	8.0

*Collected by TVA and repaid to the U.S. Treasury each year

The use of nonpower proceeds is restricted by the TVA Act and are typically used for the programs that generate the revenue. Nonpower proceeds may be used for the operation of dams and reservoirs, which has included marginal lands and recreation areas, and in manufacturing, selling, and distributing fertilizer and fertilizer ingredients. The use of nonpower proceeds in the past few years by the Environmental Research Center has been limited to salvage and cleanup efforts related to the fertilizer program which was discontinued in 1990. The Environmental Research Center has presented a transition plan to Congress that will provide 53 percent of the Center's funding for 1997 from sources other than direct TVA appropriations.

LAND BETWEEN THE LAKES

Mr. Myers. The budget request for fiscal year 1997 suggests that TVA used the authority provided in H.R. 104-149 to use an additional $1 million from the Stewardship activity for Land Between The Lakes in case of emergency. What was the emergency or "crisis situation" that led to the decision to use this authority?

Mr. Crowell. LBL's budget request for FY 1996 was reduced from $6 million to $5 million by Congress with the provision to reprogram $1 million in case of emergency. LBL is under considerable pressure from Congress to increase revenue and become more self-sufficient. In order to accomplish this and meet a stretch target of 80% cost recovery, the $1 million budget reduction at LBL in FY 1996 was a "crisis situation" which adversely impacted a multi-year strategy. TVA responded to the long-range goal and objectives set out by Congress by reprogramming the $1 million. The decision was in the best interest of Congress and the public. A lack of investment capital to continue the development of the asset base at LBL in FY 1996 would have limited future revenue opportunities.

Mr. Myers. Please describe the status of alternative proposals for making Land Between The Lakes (LBL) eighty percent self-sufficient by the year 2000. Please summarize public reaction to the proposals and explain the procedure for their evaluation. Has TVA prepared a preferred alternative for public comment? On what basis did TVA decide to make LBL only eighty percent self-sufficient by 2000?

Mr. Crowell. We are in the last month of the scoping stage of LBL's Public Use Plan process, which follows National Environmental Policy Act (NEPA) guidelines. In this stage various public interests are being surveyed to determine public opinion about the preliminary concepts and the 80% self-sufficiency objective, as well as, market demand for recreation services and public-private partnerships. Texas A&M University is directing the survey which includes:

- Random households within a 300 mile radius of LBL
- Regional stakeholders
- LBL area citizens
- Potential private, not-for-profit, and public partners

LBL's Public Use Plan preliminary concepts have generated controversy and anger at TVA and the government in general, especially in the LBL region. The driving objective for LBL's planning efforts is the 80% cost recovery objective set by TVA. It was necessary to establish a self-sufficiency target for the planning process in order to determine the possible options for LBL's future. The preliminary concepts illustrate the changes in land uses, recreation services, and traditional values required to generate enough revenue to reach 80% self-sufficiency. Preliminary survey results indicate none of the five concepts are acceptable with LBL's current and potential customers, local citizens, elected officials, private investment partners, and regional stake holders. Most respondents think an 80% level of self sufficiency would force development of new revenue-based operations that are too commercial or inappropriate for LBL. Respondents think the government has a greater responsibility to fund LBL in order to maintain what they value about this public land. The recreation additions to LBL in greatest demand are wildlife viewing and visiting historic sites at LBL. (Note: Recent actions by the National Parks, Forests, and Public Lands Appropriations Sub Committee have included consideration of a 75% level of self sufficiency for all other federal recreation areas, including all other National Recreation Areas. The committee has recently abandoned the 75% goal as infeasible and has opted to set up demonstration sites to determine what level of self-sufficiency is realistic.)

LBL's preliminary survey results do indicate that the public is willing to pay more for public recreation than they are currently paying, private partners are willing to invest if there is an even partnership with government commitment for full participation, and local elected officials support change if it can occur at a rate that allows local residents to absorb the change.

The results of the surveys and other market research will be used to prepare Public Use Plan Alternatives, including a preferred alternative, that will be available for public comment in late 1996.

TVA set the 80% self sufficiency objective for concept testing based on the assumption stewardship (basic public access, resource management, and environmental compliance) of federal lands has an inherent cost separate from public use costs. A 20% factor was estimated as the federal stewardship portion of total operating costs.

Mr. Myers. Citizens who reside in the vicinity of LBL have generated "Concept Zero" for LBL's future. This plan calls for: the transfer of management from TVA to a non-profit agency; a reduction in management personnel and their salaries; greater focus on wildlife viewing, outdoor recreation and environmental education; and the lease of campgrounds to the highest bidder to help fund LBL operations. What is TVA's reaction to this plan? Is the plan being given serious consideration by TVA?

Mr. Crowell. Concept Zero is only one of a number of suggestions we have received during the scoping process. All of these new suggestions will be evaluated in developing alternatives in the next step of the public use planning process.

In the past 2 years, LBL has significantly reduced management, administrative, and other operating costs. The result is a total of 4 managers and a manager-to-employee ratio of 1:29 (compared to 1:7 in other federal agencies). Salaries and benefits make up only 52% of LBL's total 1996 budget. This compares to 65% in national parks and national forests. Ninety-two percent of the total LBL work force is devoted to providing visitor services; only 8% provide administrative support. In 1996, LBL will recover 36% of all operating costs up from 20% in 1994, and far higher than cost recovering at any other National Recreation Area.

Mr. Myers. Please detail the use of appropriated funds for the construction of a store at Hillman Ferry Campground. What is the nature of the store and who is responsible for its operation? Does federal funding of the store represent, as some local citizens allege, unfair competition with the private sector? If not, why not? Does TVA plan to construct additional stores at LBL (e.g., at Piney Campground and Wranglers Campground)? If so, please detail the status of those plans and describe the proposed extent and sources of federal financing.

Mr. Crowell. In FY 1995, a total of $64,500 in appropriated funding was allocated for capital development of the Outpost at Hillman Ferry Campground.

- $55,000 for facility construction
- $1,000 for display units
- $2,500 for rental camping equipment
- $6,000 for rental bicycles

In order to increase LBL's operational self-sufficiency, we must meet the needs and expectations of our primary customers. The 1988 Concept Plan for Land Between the Lakes (Feasibility Analysis by Economics Research Associates, Inc.) recommended a basic campstore, along with upgraded campsites and electric/water/sewage hookups as improvements that would increase campground visitation and revenue by increasing customer satisfaction.

The Outpost opened in April l995. The Outpost offers a limited amount of convenience items, such as bread, milk, and snacks, bicycle and equipment rentals and some camping supplies--items which campers told us they wanted available in the campgrounds.

The Outpost is currently operated by retired couple contractors for TVA.

TVA's operation of the Outpost is not unfair competition. In fact, operation of the store provides a greater benefit to local businesses by helping increase visitation to LBL and the surrounding area. All inventory items are purchased locally, which also contributes to the area economy. In order to compete with other camping destinations and attract visitors from regional and national markets these services are essential on site. Campgrounds in most state and national campgrounds include similar operations. Sixty-one percent of Tennessee State's Parks and 40% of Kentucky State Parks have a campstore.

Piney Campground already has a small campstore. Some minimal improvements will be made to this trailer-based facility this year. The store offers a few camping supplies, snack food items, and bicycle rentals.

A major upgrade of Wranglers Campground is currently underway. This will include a small horse feed and camper supply store. Funding for this investment project is from other TVA non-power carryforward funds. Wranglers Campground customers have indicated a specific need to purchase feed and essential supplies for their horses and themselves onsite, because they cannot pack enough supplies in their rigs to last more than a few days. Many of the Wranglers Campground visitors originate from beyond 200 miles from LBL. This operation will be concessioned to a private operator, if there is interest. Concession fees will help cover other costs of campground operation.

Mr. Myers. How much money has been obligated for development of the new elk and bison prairie reserve at LBL? Were these funds derived from the LBL Resource Stewardship subprogram? If not, then what was the source of the funds? Please provide revenue projections for operations of the reserve.

Mr. Crowell. Approximately $363,000 was spent in FY 1995 for this project and an additional $150,000 is budgeted in FY 1996. These were appropriated funds derived from the LBL Resource Stewardship subprogram. This project was selected for funding based on its business performance which indicated net income potential by the second full year of operation. The Rocky Mountain Elk Foundation and the Land Between The Lakes Association have raised donations totaling $222,000 to support of the project. Additional donations are likely due to strong public interest in the project. Revenues from entrance fees and product sales are expected to be $60,000 in this year (the first partial year of operation). Following are revenue estimates at five year intervals:

Year 2001	Year 2006	Year 2011
$250,000	$336,000	$452,000

Mr. Myers. For each of the past five fiscal years, please provide gross funding data for LBL including: total program costs, direct appropriations (from whatever program or activity), LBL revenues, and other proceeds.

Mr Crowell. LAND BETWEEN THE LAKES FUNDING SUMMARY

(000'S)	FY 92 Actual	FY 93 Actual	FY 94 Actual	FY 95 Actual	FY 96
Estimate					
Expenditures					
Capital Projects	$ 0	$ 0	$ 0	$ 1,317	$ 1,565
Operating Expenses*	9,867	9,259	11,686	9,757	10,039
Total Expenditures	$9,867	$9,259	$11,686	$11,074	$11,604
Income					
LBL Revenue	$2,917	$2,425	$ 2,000	$ 2,777	$ 3,596
Other Non Power Income	0	0	0	994	2,008
Total Income	$2,917	$2,425	$ 2,000	$ 3,771	$ 5,604
Net Appropriations	$6,950	$6,834	$ 9,686	$ 7,303	$ 6,000

*Includes approximately $900K for TVA Police in FY 1995 and 1996 (shown under non-power income) that has been accounted for in the Stewardship Budget Category prior to FY 1995. The TVA Police provide security for the 170,000 acres at LBL, collect camping fees and patrol Kentucky Lake. The subcommittee asked TVA to show all costs for LBL in the LBL request. In response to this, these costs for the TVA Police were assigned to LBL, based on level of effort. This will ensure all costs are recognized by LBL as they move to increased self-sufficiency.

1993 and 1994 LBL revenues reflect suspension of timber sales pending completion of Environmental Impact Statement.

Mr. Myers. Is it correct that TVA anticipates only a one and a half percent increase in LBL revenues in Fiscal Year 1997? If non-appropriated revenues are not projected to increase dramatically, how will TVA downsize LBL operations to operate within a reduced funding profile?

Mr. Crowell. Yes, the one-and-a-half percent increase in revenues in FY 1997 is correct. In 1996, revenue from timber sales is higher than expected in 1997, due to some 1995 sales for which TVA was not paid until 1996. Facility improvements and additions being made in FY 1996 should contribute to higher revenues that will be realized over several years. If revenues do not reach projected levels, resources will be reallocated to minimize short-term impacts to employees wherever possible.

Mr. Myers. Have there been reductions-in-force or a decline in FTE levels at LBL in fiscal year 1996? Please provide for the record end-of-year FTE levels for LBL for fiscal years 1993 through 1997.

Mr. Crowell. There have been no reductions-in-force or decline in the number of budgeted FTE's during FY 1996.

Year	FTE's	
FY93	157	(actual employees, not FTE's)
FY94	162	(actual employees, not FTE's)
FY95	116	
FY96	114	
FY97	114	

Mr. Myers. The fiscal year 1996 budget request proposed no new spending for capital investments at LBL. Yet the 1997 budget request to OMB indicates that TVA is spending $1.7 million in FY 1996 on capital projects (even though Congress reduced the FY 96 budget request). Please explain.

Mr. Crowell. LBL is under considerable pressure from Congress to increase revenue and become more self-sufficient. In order to accomplish this and meet the stretch target of 80 percent cost recovery, LBL's asset base of revenue-generating facilities must be expanded. TVA, recognizing this need, allocated other non-power funds to LBL projects with a high rate of return. These decisions were made during the development of TVA's FY 1996 business plan, which occurred after the FY 1996 budget hearings.

ECONOMIC DEVELOPMENT

Mr. Myers. Last August, TVA opened new Economic Development offices in various locations, including Memphis and Huntsville. What are the total costs associated with opening, staffing, operating and maintaining these new offices? Are these offices funded by power revenues or are their costs absorbed by the Economic Development program in the TVA appropriation? Please list, by site, the FY97 costs for each of the nine regional economic development offices located throughout the Tennessee Valley. Please provide a brief description of the functions performed and services provided by these regional offices. How does the mission of these offices differ from that of other economic development agencies operating in the Tennessee Valley? How does TVA reconcile the proliferation of new regional Economic Development offices with its need to contain expenses in power and non-power programs alike?

Mr. Crowell. Costs for the regional offices are as follows:

	Appropriations	Power Revenues
Opening (one-time set up)	$90,000	$418,000
Staffing	$2,928,000	$1,237,000
Operations	$316,000	$134,000

FY97 estimated staffing and operating costs are as follows:

	Appropriations	Power Revenues
Field Operations Manager (Chattanooga)	$136,000	$84,000
Northeast Valley(Knoxville)	$586,000	$186,000
Southeast Valley (Chattanooga)	$528,000	$127,000
Middle Tennessee (Nashville)	$355,000	$149,000
West Tennessee (Memphis, Jackson)	$420,000	$234,000
Alabama (Huntsville, Muscle Shoals)	$541,000	$231,000
Kentucky (Hopkinsville)	$358,000	$173,000
Mississippi (Tupelo)	$320,000	$187,000

Annual lease costs for the facilities are: $454,000 and are not included in the FY97 estimates above.

The goal of establishing regional offices was to provide quick, convenient access and responsive customer service directly to the communities we serve. This makes our services immediately available and allows us to be efficient in delivering those services. Those services include technical assistance, community development, small business development, project management, and industrial expansion and recruitment. TVA is not aware of other economic development agencies that have offices dedicated to these specific communities. TVA coordinates closely with other economic development agencies that deliver their services from central located offices (such as state and federal agencies). We feel that being located with the customer and communities is the most efficient way to meet the customer's needs. In most cases, the Economic Development offices are located with other TVA organizations in the areas so that costs can be shared and minimized.

Mr. Myers. Over the past six fiscal years, how much money has TVA committed to the Tennessee Aquarium? Have all of these funds been derived from the TVA Economic Development program? Have these moneys been committed in the form of grants, direct payments, loans or other means of assistance? On what basis have these funds been awarded?

Mr. Crowell. In 1991, TVA provided $600,000 to the Tennessee Aquarium for the purpose of promoting education and conservation efforts through development of a TVA exhibit featuring the multipurpose river system. In 1994, TVA provided $20,000 to the Tennessee Aquarium for planning and coordinating "Clean Water Expo 94." Since 1991, TVA has contributed $15,000 as a corporate business partner. The $600,000 and $20,000 payments provided from TVA Appropriations in the Water and Land Category. The $15,000 was from TVA corporate funds.

Mr Myers. Has TVA committed, or does it plan to commit, appropriated dollars to the Center for Rural Studies? If so, how much? How much money in power revenues has been committed to the Center to date?

Mr. Crowell. TVA committed $300 000 of appropriated dollars to the Center for Rural Studies, and $1,352,000 of power revenues have been committed to date.

Mr. Myers. How much money has TVA awarded to the Community Business Development Center in Maryville, Tennessee? What are the sources of these funds? On what basis were TVA funds awarded to the Center?

Mr. Crowell. TVA provided $50,000 from appropriated funds to the Community Business Development Center in Maryville, Tennessee. The total project cost to date is $290,000 with the remainder of the funds and in-kind services being provided by Pellissippi State Community College, the Blount County Chamber of Commerce, Bell South, local banks, and other private partners. The Center, which became fully operational on March 1, 1996, offers businesses consulting services, a business/education resource center that includes computer and other training opportunities, access to the Internet, a telecommunications system that is to include videos, conferencing, and minority business development and support. The Center serves as a model for others across the Tennessee Valley and addresses TVA's business goal of creating jobs through small and minority business development. The project exceeded the leverage requirement of 3:1. Accomplishments of the Center through March 31, 1996, include: 5 business seminars attended by 80 people,8 Pellissippi classes attended by 64 people, business counseling provided to 58 individuals, and 1 small business start-up.

Mr. Myers. Please describe loan activity to date from the $20 million economic development fund established in 1995 with funds from TVA's power program. How do the objectives of this program relate to, or differ from, the appropriated economic development program?

Mr. Crowell. Through February 1996, TVA has made commitments to support 57 projects totaling $35,385,000 through its Economic Development Loan Fund. The Fund was established in FY95 with an initial commitment of $20 million from the power program. An additional $20 million was allocated to the Fund in FY 96 from power sources.

The program objectives of the Economic Development Loan Fund are to stimulate job creation, leverage capital investment, and promote the demand for electricity in the TVA power service area. These major objectives are compatible with, but more narrow than, the objectives of the economic development programs supported from appropriated funds.

There are important distinctions between appropriated economic development programs and the Economic Development Loan Fund. One difference is in the geographic area of program delivery. Appropriated funds are used to support activities throughout the TVA watershed area which is a larger geographic service area than the power service area.

Appropriated funds are often targeted to assist areas or populations of particular economic distress. The Economic Development Loan Fund is a competitive program seeking to assist projects anywhere in the power service area, even if a region isn't experiencing economic hardship.

Finally, unlike projects supported by appropriated funding, the Economic Development Loan Fund does not emphasize projects that might serve as national models or be transferred to other regions of the country. Projects supported from power funds are principally intended to benefit the people and communities of the power service area.

POWER PROGRAM

Mr. Myers. The Subcommittee notes that TVA has started and restarted nuclear operations at Watts Bar and Browns Ferry, respectively. What is the anticipated rate impact now that customers will have to begin paying off principal incurred on Watts Bar debt?

Mr. Crowell. TVA has committed to rate stability through 1997. The corporation has made significant steps in reducing overall costs through process improvements and lowering operations and maintenance and capital costs. TVA also has decided not to complete, by itself, Bellefonte 1 and 2 and Watts Bar 2 as nuclear plants. These actions will allow TVA to better manage its debt and be more competitive.

Mr. Myers. Has TVA conclusively determined that it will not restart the Browns Ferry Unit 2 reactor? If so, what are the Authority's plans in respect to the idled reactor?

Mr. Crowell. Browns Ferry 2 was restarted in 1991 and has performed well since its return to service. For the foreseeable future, Browns Ferry 1 will continue in an inoperative status. TVA will keep open alternatives, such as completing the unit as nuclear through partnering or replacing the unit with different types of supply and demand-side options.

Mr. Myers. TVA formally transmitted an expression of interest in the possibility of converting the unfinished Bellefonte plant for use in the production of tritium. Is TVA actively pursuing this option?

Mr. Crowell. The possibility of converting the unfinished Bellefonte plant for use in the production of tritium is one of a number of options that TVA is currently evaluating.

Mr. Myers. If not, then what plan represents TVA's preferred option for realizing the plant's potential as a valuable economic asset?

Mr. Crowell. As a part of TVA's integrated resource planning, the company is undertaking an 18-24 month in-depth engineering and financial study to develop and evaluate the best operating alternatives for the Bellefonte Nuclear Plant. TVA is committed to utilizing the Bellefonte site, is currently reviewing and evaluating 13 potential options concurrently, and is proceeding with the appropriate environmental reviews and public participation. Besides the tritium and other nuclear options, TVA is evaluating 10 fossil-fueled alternatives, including coal, coal-synthesis gas, natural gas, and combined cycle options.

Mr. Myers. Please discuss the economic aspects of converting the facility to a natural gas or coal-fired plant.

Mr. Crowell. An important part of the evaluation process to determine the most viable options for Bellefonte is an in-depth financial review. The initial financial review began early last month and will cover benefits of potential future use, costs associated with potential future uses, costs associated with maintaining existing assets, financial flexibility, schedule, economic life of the options, risks of implementation, etc. The initial financial review will be completed in mid to late 1996, and the in-depth financial evaluation of all options will be completed in late fall 1997. With the financial analysis just beginning in March 1996, no results are yet available.

Mr. Myers. What plans does the TVA have to issue bonds during fiscal year 1997? What expectations does the Authority have in respect to the sale of TVA bonds in the global bond market?

Mr. Crowell. TVA has $2.25 billion of existing debt that matures in fiscal year 1997, and will be refinanced with the issuance of new debt securities. TVA hopes that no additional borrowings will be necessary during the year for capital expenditures. This is in sharp contrast with previous years, as new borrowings have averaged $950 million per year over the last three years. In fact, TVA hopes it will not be necessary to borrow additional funds for capital expenditures for the foreseeable future. TVA also has $3 billion in debt that will be eligible to be called in fiscal year 1997, and TVA would refinance all or a portion of this debt if conditions in the financial markets were such that it would result in economic savings to TVA. TVA plans to access both the domestic U.S. financial markets as well as the international financial markets for its financing. TVA will sell bonds in whatever market offers the best financing rates at the time.

Mr. Myers. The Committee understands that TVA is modifying its contracts with distributors to include a "poison pill" to discourage TVA privatization. The modification would relieve distributors of their power purchase obligations in the event of TVA privatization. This would leave new owners of TVA assets without any guaranteed customers. Isn't it somewhat unseemly for a federal agency to engage in this type of anticompetitive activity?

Mr. Crowell. At the request of the distributors of TVA power, TVA and the distributors are amending their power contracts to ensure a more equitable business relationship between the two parties. Under the current contract, the power distributor could not assign their contract to another party without TVA's consent. However, there was no comparable limitation on TVA. Distributors thought this was inequitable and urged TVA to make appropriate changes.

Under the amendment, neither TVA nor the distributor can assign its rights and responsibilities in the contract to a third party without consent of the other. TVA cannot transfer its power supply responsibilities to another utility without the distributor's consent. TVA and distributors believe the amendment is a fair and equitable modification which enables the business relationship between the parties. As of March 29, 1996, 146 of 160 power distributor customers have signed the amended contract. This is a strong indication of the power distributors' support for the amendment.

Mr. Myers. Please describe TVA's efforts to refinance its Federal Financing Bank debt. How have these efforts been affected by the Treasury's sale of debt to the Civil Service Retirement and Disability Fund?

Mr. Crowell. TVA has repeatedly tried to refinance its high interest Federal Financing Bank debt since TVA's call privileges were arbitrarily revoked in 1984. Most recently, Chairman Crowell led a TVA delegation in January to meet with Jerry Hawke, Under Secretary of the Treasury for Domestic Finance, to discuss refinancing TVA's high interest Federal Financing Bank debt. Treasury officials have refused all TVA requests to consider refinancing this high cost debt, including the most recent proposal in January. This proposal would have provided over $3 billion in cash to the U.S. Treasury (at a time when the Treasury was dangerously close to exceeding its borrowing authority), reduced TVA's interest expense by $120 million annually, increased TVA's retained earnings, and achieved a corresponding reduction in the Federal deficit. TVA would have preferred that the Federal Financing Bank not have sold TVA's debt to the Civil Service Retirement and Disability Fund. This makes the process of allowing TVA to refinance the debt more complex and difficult. However, TVA will not stop its efforts to find an equitable agreement concerning this debt because of the significant interest savings involved. It is in the best interest of TVA to exhaust all possible solutions, including legislation, that would relieve TVA of this inequitable financial arrangement.

Mr. Myers. Explain how “Energy Vision 2020,” TVA’s recently published integrated resource plan proposes to manage the agency’s approximately $27 billion debt. Please comment generally on how TVA is changing to meet new demands of a newly competitive electricity industry.

Mr. Crowell. TVA is concerned about the level of debt, but it expects to effectively manage its debt. Debt is one of several evaluation criteria used in Energy Vision 2020 to select the best long- and short-term strategies. In addition, the debt was a major consideration in TVA’s decision not to complete several nuclear units.

When TVA’s debt is compared to the overall capitalization of neighboring investor-owned utilities, it is not out of line with its competitors. TVA can finance capital projects largely by issuing debt. Investor-owned utilities, in addition to issuing debt, raise approximately one-half of their capital through issuing stock. Debt is a recognized necessity of large corporations, and TVA has consistently met its very stringent bond tests.

TVA’s debt limit, as set by Congress in the TVA Act, is $30 billion. TVA’s current debt is some $3 billion below this debt ceiling. The TVA Board has announced plans to establish a self-imposed debt limit $2 to $3 billion below the $30 billion allowed by Congress. To achieve this, the level of capital spending is scheduled to be reduced by $1 billion over fiscal years 1995 to 1997.

TVA is expecting important changes in the relationships between utilities and their customers. Consumer, legislative, and utility actions across the nation are changing the electric utility industry from a regulated monopoly to a competitive marketplace. TVA is at the forefront of this change and welcomes the opportunity for growth and improved service and responsiveness to the needs of its current and new customers. By identifying the best energy choices for current and future consumers, Energy Vision 2020 will guide TVA as it enters this competitive marketplace.

Moreover, Energy Vision 2020 goes beyond the issue of how TVA can provide competitively priced power. The plan also considers economic development and the environment as part of TVA’s mandate to be a leader in total resource development. Innovative approaches to meeting the demand for energy through new technologies and business arrangements are the means by which TVA can provide competitively priced power, opportunities for economic growth, and a quality environment rich in natural resources.

The TVA Board has already taken several strategic actions in parts based on information and analysis performed in conjunction with Energy Vision 2020. These are:

- Reversed TVA policy on nuclear plant construction.
- Placed an internal limit on new capital debt and announced a debt-reduction program.
- Kept TVA's electric rates steady for a ninth consecutive year.
- Introduced TVA to the global energy market through international bond offerings.
- Commissioned a major study to identify strategic actions that will strengthen TVA's position in an open marketplace.

The results of these efforts is that TVA's self-supporting power system is financially strong. TVA's electric power production and operating costs are competitive with utilities in the regional market. The same is true for the electric prices paid by consumers in the TVA service area.

Energy Vision 2020 provides the TVA Board with a flexible energy supply plan that will help guide the strategic actions necessary for TVA to serve its customers efficiently, and to compete and succeed in the electric utility marketplace of the future.

Mr. Myers. Is TVA currently involved in litigation with a Mississippi distributor who was charged an exit fee upon its departure from the TVA system? If so, please describe the nature and status of the litigation. Also, explain how that fee was calculated. Has the TVA promulgated a general policy to charge exit fees for utilities leaving the system?

Mr. Crowell. TVA has not promulgated a general policy to charge exit fees for utilities leaving the system. It is TVA's intention to pursue recovery of the investment it has made in power facilities that would be stranded or lost if a distributor were to leave TVA's system.

The judgment sought against 4-County Electric Power Association pertains to its intention to discontinue purchasing power from TVA prior to the contract termination on December 6, 2003. In this regard, TVA has filed a counterclaim to recover the present value of its investment, which is at least $65 million--if for any reason 4-County ceases buying all of its power from TVA before the expiration of their contract on December 6, 2003. If TVA is unable to recover that investment, that cost will have to be borne by the other consumers of TVA power. TVA also seeks nearly $1.2 million paid to 4-County under a prior growth credit program, if for any reason 4-County ceases buying all of its electric power from TVA before December 6, 2003. In the counterclaim, TVA seeks a declaratory judgment that the power contract and supplement between TVA and 4-County is a valid and binding contract.

TVA has filed a motion for summary judgment on the complaint filed by 4-County against TVA and on TVA's counterclaim that the contract is valid and binding and should be enforced. The motion is supported by a legal brief and an affidavit. 4-County has filed motions with regard to some of the counts in its complaint and TVA's counterclaim. TVA also has filed responses to 4-County's motions showing why they have no merit and should be denied.

It is TVA's position that the actions which 4-County challenges in its lawsuit-- approving the Enhanced Growth Credit Programs and establishing the conditions on which the program would be made available to distributors of TVA power--involve functions that are authorized by the TVA Act, that are solely within the discretion of TVA's Board of Directors, and that are not subject to judicial review.

Mr. Myers. Chairman Crowell has expressed TVA's ability and desire to compete with utilities outside TVA's service area. Does this mean that the statutory prohibition against permitting TVA to be a source of power outside of its service area is outdated? What is the rationale for a federal agency to aggressively compete against the private sector?

Mr. Crowell. The fence around TVA's service area was put up at the insistence of private power companies when the TVA power system became self-financing. The fence was intended to be a bulletproof vest for our competitors. It has become a straitjacket for TVA. There was a time when the fence was a source of security for TVA. But there can be no security in a one-way fence that allows our competitors to come in but keeps us from going out. The fence is an artificial barrier that gives our competitors an unfair advantage, a means to whittle away at our territory. We simply say that if others have the right to come after our customers, we should have the right to go after theirs..

TVA had the freedom to compete before the fence was established. Now, as the market is deregulated, the freedom to compete makes sense again. The role of public power as a benchmark and yardstick for private utilities will be at its most important in a deregulated environment. We are the utility sector with the most experience in responding to the needs of customers. TVA's power system meets customers needs with reliable, competitively priced power and receives no federal subsidies to do so.

Mr. Myers. As you are aware, the General Accounting Office, after an exhaustive investigation, concluded that the agency's financial condition was not strong enough to permit it to compete successfully in the future. Furthermore, GAO disagreed with TVA that removing existing legislative protections would make TVA more competitive. Are you convinced that the GAO's claims in this regard are without merit?

Mr. Crowell. The GAO's report is inaccurate in its analysis of TVA's financial condition. Throughout its report GAO makes inappropriate comparisons between TVA's capital structure and those of investor owned utilities. TVA's debt is not out of line with the total capitalization of other utilities.

Additionally, GAO based many of its claims on the assumption that Watts Bar Unit 1 and Browns Ferry Unit 3 were "non-producing nuclear assets" as opposed to construction works in progress. As mentioned in my testimony, Watts Bar Unit 1 has received its full power license for operation from the NRC and by the end of this spring should be fully operational. Browns Ferry Unit 3 is running. These units are generating cash and power.

Regarding TVA's ability to compete, TVA is managing its debt in the most sound, business way possible. If ever the legislative protections are removed, TVA would be a major competitor in the market for electric power customers. According to a study by Palmer-Bellevue, the strategic-consulting arm of Coopers & Lybrand, TVA 's financial condition is likely to be able to withstand the pressures of a more intense competitive market in the regional electric industry.

Mr. Wicker. When deliberations began on the lignite project, the criterion on which its feasibility hinged was receiving an acceptable offer from Phillips/CRSS. Your cost request was met, if not surpassed. What is the justification for "moving the goalposts" by requiring something new of the local power distributors?

Mr. Crowell. TVA did not "move the goalposts" for the Mississippi Lignite Project.

Phillips/CRSS originally proposed a power price which was well above TVA's available flexible alternatives (Option Purchase Agreements (OPA's)), and inflexible (new power plant) alternatives. None of the inflexible alternatives can meet the lower price of the OPA's, but neither can the OPA's necessarily provide TVA with "on-system" generation for long range planning. TVA's IRP suggests a mix of these flexible and (at the appropriate time) inflexible alternatives.

TVA worked with Phillips/CRSS to achieve a power price comparable to the best inflexible (new power plant) alternative. This was achieved after long negotiation and an agreement on TVA's part to depend on a certain level of steam sales from the facility in addition to the electric sales.

However, as the IRP outlined, there is considerable value in delaying any decision on inflexible alternatives and, to be fair to all of TVA's distributors, this value should accrue to TVA if a decision is made to commit to one of these alternatives now. TVA believed that an additional five-year commitment from the Mississippi distributors would provide that value, and initial reaction was positive.

Currently there are a number of Mississippi distributors who oppose this approach; and TVA will be meeting with all Mississippi distributors to explore other potential ways to further enhance the "value" of the Mississippi Lignite Project to the point where it makes economic sense to all of TVA's distributors.

TVA Is Meeting Today's Mandate

The Tennessee Valley Authority (TVA) was created as a federal agency challenged "with the broadest duty of planning for the proper use, conservation, and development of the natural resources of the Tennessee River drainage basin and its adjoining territory of the general social and economic welfare for the Nation . . ."

TVA serves the region and the nation by finding innovative ways to provide essential services efficiently and effectively. As a model for other government agencies, TVA is (1) identifying critical services that should be funded by the government, (2) ensuring that these programs are delivered as efficiently and effectively as possible, and (3) developing creative means of delivering these programs and services to the public in a manner that will benefit as many people as possible.

This broad charge is carried out within a watershed that encompasses 106,000 square kilometers (41,000 square miles) and nearly eight million people in portions of seven states. The lifeblood of this watershed is the 100,000 kilometers (60,000 miles) of streams that feed the 1,050-kilometer (652-miles) Tennessee River, the fifth-largest in the United States. The river system includes 54 dams and 14 navigation locks managed by TVA.

Within this setting, TVA also has direct stewardship responsibilities for the following:

- 259,400 hectares (641,000 surface acres) of water
- 18,000 kilometers (11,000 miles) of shoreline
- 170,000 hectares (420,000 acres) of public land
- 1,600 kilometers (1,000 miles) of navigable waterways
- 685 kilometers (426 miles) of trails
- 907 kilometers (564 miles) of road and
- 100 public recreation areas.

At the heart of these programs is the Tennessee Valley's greatest resource — its people. TVA sparks economic progress with strategic initiatives that increase the production of goods and services and that generate high-value jobs. These investments raise the standard of living in a region where the per-capita income is 18 percent below the national average. To encourage a vital and sustainable future for the region, TVA uses its technical expertise to encourage business development and to link local enterprises to the global economy.

Separate from the appropriated programs is TVA's electric-power system, which is self-supporting and not subsidized by the federal government. Through 160 local power companies, TVA supplies electricity to Americans across a seven-state region. TVA also sells electricity directly to 62 large industrial customers in the region.

TVA has identified its essential appropriated services as (1) those mandated by federal and state laws, (2) those that must be implemented to ensure the safety of the public, and (3) those that provide for the stewardship of a $5.2 billion public investment. Many of these programs focus on TVA's stewardship responsibilities for the Tennessee River, its tributaries, and its public lands. TVA also works to protect and improve water quality and aquatic life in the reservoirs and the watersheds that drain into them. Each year, visitation to TVA's reservoir system contributes $1.25 billion to the economy of the Tennessee Valley.

Included in this property is Land Between The Lakes, a 69,000-hectare (170,000-acre) National Recreation Area located between Kentucky and Barkley lakes. This facility is the centerpiece of a $400-million regional tourism industry, attracting more than 2.2 million visitors a year.

Within its limited budget, TVA continues to find ways to deliver its many programs with increased efficiency. In recent years, TVA has improved the business practices of its appropriated programs by reducing administrative and operating costs. At the same time, the programs have been re-evaluated to ensure that each one is efficient, effective, and responsive to the needs of its customers.

TVA also stretches each budget dollar further by finding creative ways of delivering these programs and services. These innovations are put into practice through dozens of public/private partnerships, such as River Action Teams. These teams work to help raise awareness about water resources within a community and to encourage members of the community to improve their local lakes and rivers. Once the partnership is established, TVA redirects its resources into other communities and watersheds.

Further, TVA is leading the way in government innovation by developing new funding options for some of its programs.

For the Environmental Research Center, TVA is transitioning the center away from appropriated funding. In FY95, the ERC brought in revenues of $14.4 million from sources other than direct appropriations. ERC customers include other federal agencies, industries, and TVA's power business. In FY96, TVA began developing an environmental business plan to facilitate the ERC's transition to self-sufficiency.

The specific challenges faced by TVA have changed over its history, and TVA is changing to meet those challenges. Today, the success of TVA depends upon its ability to provide cost-effective programs that meet the public's needs. Additional details about these programs and services are contained within this document.

TVA FY97 Budget

Summary of Budget Financed from Appropriations

($ in thousands)

	1995 ACTUALS	1996 ESTIMATE	1997 ESTIMATE
Water and Land Management	84,640	77,481	83,000
Chickamauga Lock and Dam	245	500	4,000
Environmental Research Center	27,399	17,000	17,000
Economic Development	22,502	16,000	16,000
Total Financing from Appropriations	**134,786**	**110,981**	**120,000**
Unobligated balance brought forward	(274)	(1,812)	0
Balance carried forward	1,812	0	0
Total Financing	**136,324**	**109,169**	**120,000**

Summary of Budget Financed from Power Proceeds

($ in thousands)	1995 ACTUALS	1996 ESTIMATE	1997 ESTIMATE
Water and Land Management	10,254	12,726	14,797
Environmental Research Center	6,470	234	0
Total Financed from Power Proceeds	**16,724**	**12,960**	**14,797**

Summary of Budget Financed from Nonpower Proceeds

($ in thousands)

	1995 ACTUALS	1996 ESTIMATE	1997 ESTIMATE
Water and Land Management	10,869	6,967	7,000
Environmental Research Center	0	1,600	1,000
Economic Development	425	0	0
Other			
Reimbursable Services	36,140	5,254	5,000
Total Financed from Nonpower Proceeds	**47,434**	**13,821**	**13,000**

Financing

($ in thousands)

	1995 ACTUAL	1996 ESTIMATE	1997 ESTIMATE
Balance Brought Forward	18,748	20,984	21,386
Current Proceeds:			
Water and Land Management	5,644	5,877	6,000
Environmental Research Center	2,033	1,425	0
Reimbursable Services	36,140	5,254	5,000
Other Income	6,186	2,000	2,000
Total Current Proceeds	50,003	14,556	13,000
Total Funds Available	**68,751**	**35,540**	**34,386**
Payments to the Treasury	(333)	(333)	(400)
Balance Carried Forward	(20,984)	(21,386)	(20,986)
Total Financing	**47,434**	**13,821**	**13,000**

Water and Land Management

TVA is entrusted with the management of a broad array of public lands, physical facilities, and natural resources. To ensure both the present day use and the future availability of these facilities and resources, TVA must work to protect and build upon these resources.

Funding in this category enables TVA to carry out obligations and mandates that include operating 54 dams and reservoirs; monitoring, repairing, and improvement of 14 navigation locks and related facilities; conserving and improving water quality and supply; ensuring a reliable and potable supply of water for four million people; and controlling mosquitoes and aquatic plant pests.

In land management, TVA works to prevent shoreline erosion and plans for and manages more than 100,000 hectares (250,000 acres) of land. TVA-owned land includes narrow bands of shoreland that TVA acquired to preserve the integrity of its system of dams and lakes to control flooding, as well as large tracts of land on which natural resources and recreational activities are managed. TVA manages some 100 public recreation areas that offer opportunities for boating, hunting, fishing, hiking, swimming and camping. Annually, visitation to TVA's reservoir system contributes $1.25 billion to the economy of the Tennessee Valley. Consistent with federal mandates, TVA land holdings protect and provide for the management of extensive cultural resources, threatened and endangered species, critical wetland habitats, and scenic areas.

In water management, TVA works to protect and improve water quality and aquatic habitat in the watersheds of the Tennessee Valley region. TVA controls flooding along 1,050 kilometers (652 miles) of the Tennessee River and more than 1,900 kilometers (1,200 miles) along its tributaries. In 1994, TVA's flood-control program prevented more than $1 billion in flood damages across the Valley and along the Ohio and Mississippi rivers. TVA also manages the navigation system used for recreation and for transporting some 44 million metric tons (48 million tons) of cargo annually, which saves $400 million in transportation costs.

Land Between The Lakes, in western Kentucky and Tennessee, is a 69,000-hectare (170,000-acre) National Recreation Area. Attracting more than 2.2 million visitors a year, the facility is the centerpiece of a $400-million annual regional tourism industry.

TVA FY97 Budget

Water and Land–Program Financing Schedule

($ in thousands)

	1996 ESTIMATE	1997 ESTIMATE
Appropriations		
Capital		
Dam Safety, Capital Improvements	5,578	6,478
Navigation, Capital Improvements	3,564	4,130
Pickwick Channel Modifications	4,035	0
Reservoir Releases Improvements, Capital	95	205
Dam Reservation and Recreation Capital Improvements	1,736	1,121
Accessibility Compliance	1,728	2,249
Land Between The Lakes	1,565	817
Total Capital	**18,301**	**15,000**
Operations		
Daily Reservoir Operations	10,124	10,364
Emergency Preparedness and Operations	189	190
Dam Safety, O & M	6,231	7,821
Navigation, O & M	1,279	1,648
Navigation Waterway Development	1,202	1,219
Reservoir Releases Improvements, O & M	323	325
River Action Teams	12,350	13,170
Regional Water Supply	1,076	1,083
Mosquito Management	995	902
Aquatic Plant Management	796	701
Shoreline Management Initiative	1,573	1,982
Reservoir Shoreline Erosion	299	601
26a Construction Permit Processing	2,688	3,346
Land Use Services	3,107	4,333
Natural Resource Stewardship	978	1,657
Reservoir Lands Planning	245	501
Recreation Operations, Maintenance and Development	7,520	9,641
Reservation Property Facilities Maintenance	0	466
Automated Land Information System	1,692	1,774
Geographic Mapping Services and Products	673	711
Regional Natural Heritage	449	548
Cultural Resources	401	436
Land Between The Lakes	10,039	10,249
Environmental Site Remediation	1,918	1,332
Total Operations	**66,147**	**75,000**
Application of Nonpower Proceeds	(6,967)	(7,000)
Total Appropriations	**77,481**	**83,000**

TVA FY97 Budget

Water and Land–Program Financing Schedule

($ in thousands)

	1996 ESTIMATE	1997 ESTIMATE
Power		
Capital		
Dam Safety, Capital	1,800	2,614
Accessibility Compliance	130	261
Dam Reservation and Recreation Capital Improvements	659	393
Total Capital	**2,589**	**3,268**
Operations		
Daily Reservoir Operations	1,462	1,496
Emergency Preparedness Operations	49	50
Dam Safety, O & M	1,932	2,160
River Action Teams	468	351
Mosquito Management	260	234
Aquatic Plant Management	208	182
Shoreline Management Initiative	411	514
Reservoir Shoreline Erosion	78	156
26a Construction Permit Processing	702	868
Land Use Services	928	1,125
Natural Resource Stewardship	255	430
Reservoir Lands Planning	64	130
Recreation Operations, Maintenance and Development	2,155	2,757
Reservation Property Facilities Maintenance	0	16
Automated Land Information System	442	460
Regional Natural Heritage	117	142
Cultural Resources	105	113
Environmental Site Remediation	501	345
Total Operations	10,137	11,529
Total Power Proceeds	**12,726**	**14,797**
Total Nonpower Proceeds	**6,967**	**7,000**
Total Financing	**97,174**	**104,797**

Land and Water Management

Programs for FY97 $000s

Capital:

Dam Safety, Capital Improvements **6,478**

Under this program, TVA performs technical studies, engineering analyses, and structural modifications for its 54 dams to ensure that they continue to meet the Federal Guidelines for Dam Safety. TVA dams range from 16 to 84 years old. Concrete growth and deterioration of operating machinery threaten the integrity and operations of spillways, locks, and other equipment. Funding for this year will be used to ensure that seven spillway gates at Hiwassee Dam, Chickamauga Dam, and Fontana Dam are operational. Funding also will be used to resurface the road at Pickwick Dam, which TVA deferred to this year because of appropriated budget cuts in FY96. Funding also will be used to complete construction of embankment modifications at Watts Bar and Little Bear Creek dams, and to begin design work to bring Chickamauga Dam up to current hydrologic standards.

Navigation, Capital Improvements **4,130**

Capital improvements enable TVA to ensure that its system of locks and mooring facilities provides reliable and safe navigation avenues for the commercial towing industry and recreational users. This year funding will be used to complete the design and long-lead procurement to upgrade the Guntersville Lock electrical system, to construct mooring cells for Hiwassee River, to design cells for Wheeler Lock, to complete the design to modify the Wilson Lock operation building, and to continue major repairs at Chickamauga Lock.

Reservoir Releases Improvements **205**

Under the Lake Improvement Plan, TVA continues the capital improvements for completing aeration and minimum-flow systems for additional dams. When finished, the system will operate at 19 dams. The dams slated for capital upgrades release water that is high in iron, manganese, and sulfides. For FY97, TVA plans to increase the number of dams meeting dissolved-oxygen levels from 11 to 16 and to complete an aeration system on Normandy Dam.

Dam Reservation and Recreation Areas, Capital Improvements **1,121**

TVA manages more than 100 dam-reservation and reservoir-recreation areas along the Tennessee River. These recreation areas support 100 million visits annually and contribute significantly to a $1.25-billion water-based outdoor-recreation/tourism industry. These properties support public and private marinas, campgrounds, day-use parks, a multitude of boat ramps, public restrooms, trails, and courtesy piers. This program supports modest, annual capital improvements to TVA's public recreation assets to meet the public demand for continual improvements to recreation sites. For FY97, TVA plans to make improvements to the recreation infrastructure, such as campsite hook ups, boat ramps, and other facilities.

Accessibility Compliance **2,249**

This program provides for TVA's compliance with the federally mandated civil-rights regulations under sections 501 and 504. TVA is working to complete its mandated accessibility requirements. This work was impacted in FY96 because of funding cuts. In FY97, TVA plans to complete 30 projects to increase accessibility and to make 13 toilet buildings in recreation areas accessible to persons with disabilities.

Land Between The Lakes, Capital Improvements **817**

Land Between The Lakes is a 69,000-hectare (170,000-acre) National Recreation Area managed for a variety of recreation and environmental-education services. Funding for these capital improvements will come from nonpower carryforward funds and is not an additional request for appropriations. LBL's immediate future is being decided through a public-use planning process that will chart a 10-year course for ways to sustain LBL's mission as a National Recreation Area whose earned revenues supply the majority of its resource needs by the year 2001. Funding for FY97 will be used to make further infrastructure and public use improvements.

Operations:

Daily Reservoir Operations **10,364**

This essential service supports TVA's statutory obligations to operate its dams and reservoirs to regulate streamflows for multipurpose objectives and to supply predictions of reservoir inflows, flood crests, river and reservoir stages, and project releases. The funding for this year will allow TVA to continue operating its 54 dams for flood control and other needs. Funding also will enable TVA to develop more than 400 operation schedules that include more than 200 requests for special operations to meet customer needs and to continue to provide information in response to more than 800,000 requests annually. It also allows TVA to collect data from 360 locations to provide information needed for monitoring and flood control. To help meet recreation needs on the river, this program also provides forecasts for lake levels to the public.

Emergency Preparedness and Operations **190**

In response to Federal Guidelines for Dam Safety, TVA develops and performs readiness exercises to evaluate competency in acting on and responding to dam-safety issues and flood emergencies. Up-to-date Emergency Action Plans are maintained for 36 of TVA's dams.

Dam Safety, Operations & Maintenance **7,821**

As part of TVA's Dam Safety program, TVA regularly inspects its dams and bridge structures and machinery. Funding also allows TVA to collect field data for required reports to federal agencies, to maintain water-control equipment and appurtenant structures, and to conduct structural analyses of TVA dams. In FY97, TVA plans to conduct more than 1,000 inspections of its dams and provide 42 reports to federal agencies.

Navigation, Operations & Maintenance **1,648**

TVA management of the Tennessee River system and a complex system of dams, locks, and channel markers ensures year-round navigation for commercial and recreation vessels. This year, TVA plans to inspect 1,560 recreation channel buoys, 320 recreation boat hazard marks, 395 recreation onshore day board navigation markers, 54 main-channel navigation staff gauges, 1,626 main-channel buoy reference ranges, and 1,400 kilometers (875 miles) of recreation channels. Also, funding will be used to provide electricity to operate the locks (about 5 million kwh). In addition, maintenance of support facilities at locks will include modifying one parking lot, constructing two storage pads, installing two security gates, and revising two drawing folios.

Navigation Waterway Development **1,219**

This program allows TVA to monitor use of the waterway, to develop long-range plans, and to implement strategies for reducing the cost of commercial transportation on the Tennessee River. TVA anticipates that with these improved efficiencies shippers can increase their savings from $398 million in FY96 to $420 million in FY97. This year, the funding will be used to refine the long-range navigation plan, to analyze the helper-boat program for extension to other sites, to develop a long-term river-safety program, and to update databases with current geographic information.

Reservoir Releases Improvements, Operations & Maintenance **325**

As part of the Lake Improvement Plan, TVA uses this program to maintain the productivity of award-winning technology to improve the quality of tailwaters through water releases at 19 dams and maintain minimum-flow standards at 16 dams. This program improves dissolved-oxygen levels, water temperature and other elements that serve to improve the diversity of fish populations, aquatic habitat and potable water quality. Funding for this program in FY97 will be used to maintain minimum dissolved-oxygen levels year-round and provide a cool-water refuge in Watts Bar Lake.

River Action Teams **13,170**

TVA River Action Teams help TVA fulfill its responsibilities outlined in the Lake Improvement Plan. These teams identify protection-and-improvement projects using information compiled from a comprehensive monitoring program and build partnerships to carry out these programs. Once these programs and partnerships are established, TVA redirects its resources into other communities and watersheds. In FY95, more than 22,000 volunteer hours were contributed to work that improves water quality.

For FY97, TVA will complete baseline assessments in 121 hydrologic units, develop watershed strategies in 108 hydrologic units, establish a presence in 221 hydrologic units, develop 16 local coalitions, implement corrective action in 61 hydrologic units, conduct follow-up assessments in 41 hydrologic units, and evaluate beneficial uses for fishability in 12 reservoirs, swimability at 25 reservoir sites, and biodiversity in 19 reservoirs. Within this program, TVA also plans to place 3,617 habitat structures in streams and reservoirs, to produce 41 education products, to increase from 86 to 104 the number of coalitions in watershed planning projects, and to increase from six to 10 the number of new hydrologic units with active presence by River Action Teams.

Regional Water Supply **1,083**

The Tennessee River and its tributaries serve as a safe and reliable source for potable water supply benefiting more than four million people, with demands increasing annually. Through this program, TVA meets its mandate for conserving and developing the water resources in the Tennessee River basin. About 60 communities in the Tennessee Valley are experiencing limited growth opportunities because of severe water limitations. TVA provides technical assistance to communities experiencing water-quality or quantity problems and assists them in preparing and implementing regional water-supply projects. For FY97, TVA will prepare and implement a land-use transition plan for final disposition of the Columbia Dam Project, and promote water-conservation practices by providing leak-detection services to at least 10 communities presently experiencing water losses. TVA also will complete seven environmental reviews on proposed regional water-supply projects.

Mosquito Management **902**

In the TVA Act, Congress charged TVA with the mandate to stop the spread of diseases (malaria and yellow fever) by controlling the mosquito breeding conditions along the river. While the spread of disease from mosquitoes is under control, TVA is continuing to develop new nonchemical technology to control mosquitoes. Also, TVA is finding ways to teach the public how to handle its own mosquito problems by transferring necessary information and technology. Funding for FY97 will be used to control at least 85 percent of the mosquitoes in priority-use areas and to control 75 percent of the mosquitoes at selected release sites through nonchemical means. TVA will reduce the number of treatment applications from 400 for FY96 to 200 in FY97 as it transfers some of its activities to the public.

Aquatic Plant Management **701**

This program provides for the effective and efficient management of nuisance aquatic plants. Reservoir shoreline is especially susceptible to nuisance plants that clog boat propellers and compete with native aquatic-plant species for growth space. TVA is working with private dock owners and commercial facilities to teach plant-management techniques that do not require releasing herbicides into the water. TVA is also preparing to charge fees for controlling plants around private docks and commercial facilities. For FY97, TVA will use funding to keep 90 percent of its public-use areas free of nuisance aquatic plantlife and will work to re-establish native plants at 32 sites along reservoir shorelines. Also, TVA will establish five homeowner group demonstration projects.

Shoreline Management Initiative **1,982**

TVA has initiated the first integrated shoreline-management policy analysis in its history. Using this data, TVA will establish a new Valleywide policy for residential shoreline development with extensive public input. This policy will provide proactive measures that will enable TVA to handle residential development guidelines consistently and to enforce its policy. For FY97, TVA will complete a shoreline inventory on 3,218 kilometers (1,998 miles) of open shoreline. TVA also will complete the Environmental Impact Statement and Record of Decision for the project.

Reservoir Shoreline Erosion **601**

This activity provides for the testing and implementation of erosion-control strategies and ecologically friendly engineering and design methods that can be incorporated into shoreline-stabilization projects. Treatments will result in multiple solutions to prevent erosion, control sedimentation, and provide wildlife habitat in difficult settings. For FY97, TVA will conduct a comprehensive, quantifiable assessment of shoreline erosion at six reservoirs and will implement environmentally compatible solutions at 12 sites.

26a Construction Permit Processing **3,346**

In the TVA Act, Section 26a provides TVA with permitting authority to ensure that flood control, navigation, power generation, recreation and public-lands management capabilities are not compromised by the construction of water-use facilities. TVA uses Section 26a to enforce regulatory and policy requirements for development along shorelines. For FY97, TVA will use funding to process 2,500 26a permits while continuously improving the effectiveness and efficiency of the permitting process. TVA plans to reduce the time it takes to process requests from 29 to 26 days for Category I/II (minor action) permits and from 90 to 70 days for Category III (major action) permits.

Land Use Services **4,333**

TVA manages its public lands for the benefit of the public and to meet a variety of federal laws, including the Clean Water Act; Clean Air Act; Comprehensive Environmental Response, Compensation, and Liability Act; Endangered Species Act; and other federal laws and executive orders. TVA manages and monitors about 650,000 hectares (1.6 million acres) of land that include TVA-owned shorelands, flowage easements, land that has been sold to the private sector with restrictions or conditions, land transferred to public entities for specific purposes, and lands impounded and now under the reservoirs. For FY97, TVA will continue to provide customer support on several hundred land-use proposals and real-estate transfers. Also, funding will be used to monitor existing contracts and land-use agreements and provide active management of program interests.

Natural Resource Stewardship	**1,657**

TVA manages 61,000 hectares (150,000 acres) of public lands (not including Land Between The Lakes) for multiple purposes that include timber harvesting, wildlife habitat management, and recreation. This program provides for the effective management and operation of a variety of TVA properties that have significant value to hunters, farmers, forest product companies, recreaters and the environmental community. For FY97, TVA will reinventory seven percent of its forest and timber assets, and develop stewardship plans for 3,000 hectares (7,500 acres) of reservoir land.

Reservoir Lands Planning	**501**

This program provides for the extensive customer involvement and strategic planning that build consensus for long-term public policy while meeting the requirements of state and federal laws, including the National Environmental Policy Act, Clean Water Act, Clean Air Act, and others. For FY97, TVA will incorporate the new, consistent standards and guidelines of the Shoreline Management Initiative into collaborative planning and design work with developers. TVA will develop six plans for tributary reservoirs and is working to ensure that all developers and homeowners know the build-out potential for reservoir shorelands.

Recreation Operations, Maintenance and Development	**9,641**

This program provides for the operation and maintenance of 36 dam reservation areas and 64 reservoir recreation areas to meet public demands for these facilities. Funding for this program goes to the maintenance of the structural integrity of the earthen portions of dams and backwater protection areas through maintenance of riprap, mowing, application of herbicides and pesticides, and maintenance of drainage structures and pumping equipment. Funding also is used for general grounds maintenance, trash collection, and utility services, as well as cyclic maintenance that includes repaving roads, refurbishing buildings, and repairing visitor facilities at TVA's dam sites and reservoir recreation areas.

Reservation Property Facilities Maintenance	**466**

This program provides for the ongoing maintenance of the extensive property and facility inventory at Muscle Shoals, Alabama. This maintenance activity protects about $36 million in capital assets, including 45 buildings that have been designated as historical through the National Historic Preservation Act of 1966. For FY97, funding will be used to maintain large equipment, 45 buildings, 120 hectares (300 acres) of grounds, and 16 kilometers (10 miles) of roads.

Automated Land Information System	**1,774**

This program develops and maintains desktop computer-based lands-data information system that is accessible over local and wide-area network communications by more than

200 TVA employees in 15 locations. This system provides quick access to valuable information for TVA staff members to make land-management decisions in their work with the public. For FY97, funding for this program will be used to complete the automation of seven additional land-management business processes; develop computerized databases of retained, sold, and transferred land tracts; train employees in the use of the system; and implement a document-imaging system to manage drawings, photographs, graphics, and text documents.

Geographic Mapping Services and Products **711**

TVA works in partnership with local, state, and federal geographic-information groups to develop and maintain maps and geographic data of the Tennessee Valley that none of the collaborators could afford to produce independently. This program supports the production work, staff expertise, and coordination with TVA's programs and other agencies to track and integrate mapping data. For FY97, funding will be used to provide and maintain a digital database of geographic information of the Tennessee Valley and to maintain a clearinghouse of geographic information in the region. TVA also will work to increase the amount of funding matched by partners from 50 percent to 75 percent.

Regional Natural Heritage **548**

TVA has established a scientifically accurate inventory of plants, animals, and geologic-resource features on 27,000 hectares (67,000 acres) of public lands. This inventory lowers the cost of performing environmental reviews and aids in decisionmaking about land-use requests. This program also responds to statutory requirements of several state and federal laws. For FY97, the funding will be used to survey 10,000 hectares (25,000 acres) of land and incorporate that information into TVA's Natural Heritage Database to maintain this database of information on more than 12,000 hectares (29,000 acres), to monitor 10 TVA natural areas, and to monitor 19 threatened and endangered sites.

Cultural Resources **436**

It has been estimated that the Tennessee Valley has more archaeological resources than any other region in the United States. This program provides for the study and protection of historical and cultural resources on TVA's land while contributing to TVA's stewardship mandate, consistent with Federal laws. For FY97, TVA will use funding to continue complying with applicable regulations, to inventory 3,600 hectares (8,900 acres) of sensitive lands, and to stabilize and protect two significant archaeological sites.

Land Between The Lakes National Recreation Area **10,249**

These operating expenses include approximately $3.65 million TVA will generate from user fees and other income. Operating costs for FY97 will be used to introduce and implement LBL's 10-year public-use plan; to pay for TVA Police, which provide 24-hour security; to acquire partnership and investment capital necessary to meet the plan goals; and to maintain existing programs at supportable levels for the more than 2 million annual visitors. LBL includes 660 kilometers (410 miles) of roads, 320 kilometers (200 miles) of trails, and more than 1,300 campsites. Included in those served by these programs are 485,000 campers, 5,000 off-highway vehicle riders, 12,000 hunters, and 12,000 youths who stay overnight through environmental education programs. At LBL, TVA anticipates it will recover 36 percent of its costs through user fees, timber sales and other services.

Environmental Site Remediation **1,332**

During the development of the reservoir system, TVA acquired former commercial and industrial sites that are contaminated with lead, phosphorous, and other common toxic chemicals. Many of these sites are located adjacent to TVA reservoirs. Through this program, TVA has identified four remediation priorities at sites located on TVA property, with one adjoining municipal property targeted to be included in a historic tourism trail. This program allows TVA to plan and carry out expeditious, proactive cleanup of these sites to avoid costly, enforced cleanup in the future. In FY97, funding will allow TVA to complete site-remediation work at two of these sites. This program is separate from the EPA-designated Resource Conservation and Recovery Act sites located on the Muscle Shoals, Alabama, reservation.

Chickamauga Lock and Dam

TVA is completing a study of the lock, with recommendations for keeping Chickamauga Lock operative while initiating the construction of a replacement lock. Without a new lock, or significant rehabilitation of the old lock, navigation above Chickamauga would be significantly limited within ten years, which would force shippers to find alternative, and likely more expensive, means of transportation for their goods. Closure of the lock shuts off much of east Tennessee to water transportation and access to the Ohio and Mississippi rivers, as well as to the Gulf of Mexico via the Tennessee-Tombigbee waterway. Closure would impact many jobs and industries in the region and increase the cost of goods that now come into the area via the waterway.

Chickamauga Lock and Dam are located just upriver from the Valley's most flood-prone location, Chattanooga, Tennessee. More than 1.8 million metric tons (2 million tons) of goods and countless recreation boats pass through the lock each year. Concrete growth and deterioration of equipment on the upper gates caused serious operational difficulties this past summer, and the risk of complete failure increases each year.

TVA FY97 Budget

Chickamauga Lock and Dam—Program Financing Schedule

($ in thousands)

	1996 ESTIMATE	1997 ESTIMATE
Appropriations		
Capital:		
Chickamauga Lock and Dam	500	4,000
Total Capital	500	4,000
Total Appropriations	**500**	**4,000**

New Lock Design and Construction (Real $ in thousands)

1995	245
1996	500
1997	4,000
1998	23,688
1999	29,900
2000	33,000
2001	56,600
2002	51,800
2003	37,500
2004	44,300
2005 new lock operational	7,500

Total design cost	**33,000**
Total construction cost	**256,033**

Chickamauga Lock and Dam

Programs for FY97 $000s

Chickamauga Lock and Dam **$4,000**

For FY97, the dollars requested would be divided between ongoing repair and maintenance and planning future options. For this year, TVA's goal is to maintain Chickamauga Lock's operability at 100 percent and to complete 25 percent of the new lock design.

Environmental Research Center

At the Environmental Research Center, research focuses on work that promotes the cleanup and protection of the nation's land, air, and water resources. The environmental issues facing the nation today are different from the ones TVA faced in its first decades, but they are no less important to continued sustainable development of the region. TVA's unique scientific and technological expertise is playing a vital role in addressing important issues such as industrial and agricultural contamination of land, water, and air. Nonpoint source pollution, biotechnology, contaminated site remediation, and atmospheric sciences are areas where TVA's world-class scientists and engineers are making significant advances.

The ERC's business goal is to introduce new and more economical ways for industries and resource managers to prevent and correct environmental problems that are barriers to economic growth. Additionally, the ERC participates in the White House Office of Science and Technology Policy's Committee on the duplication of federal environmental research investments—a committee whose purpose is to ensure non-duplication of federal environmental research investments. TVA also is working to reduce the ERC's dependence on direct federal appropriations. A growing customer base includes the Department of Defense, the Department of Energy, and the Environmental Protection Agency, as well as state and local governments and industries. A multiyear plan for self-sufficiency is being developed that will maintain the ERC's capability for use by TVA and other agencies.

TVA FY97 Budget

TVA Environmental Research Center–Program Financing Schedule

($ in thousands)

	1996 ESTIMATE	1997 ESTIMATE
Appropriations		
Operations		
Atmospheric Sciences	3,144	2,720
Biotechnology Remediation	1,904	5,440
Land and Watershed Protection	3,085	3,740
Environmental Compliance	7,588	6,100
Industrial Ecology	2,879	–
Total Operations	18,600	18,000
Application of Nonpower Proceeds	(1,600)	(1,000)
Total Appropriations	**17,000**	**17,000**
Power Proceeds		
Operations		
Biotechnology Remediation	78	
Land and Watershed Protection	156	
Total Operations	234	
Total Power Proceeds	234	
Nonpower Proceeds	**1,600**	**1,000**
Total Nonpower Proceeds	**1,600**	**1,000**
Total Financing	**18,834**	**18,000**

Environmental Research Center

Programs for FY97 $000s

Atmospheric Sciences **2,720**

The primary focus of this program is to provide the scientific information needed to develop cost-effective air-pollution-control strategies. A major portion of the program is designed to address the information gaps in understanding the factors that control ground-level ozone concentration, which are a major problem in many major urban centers and several rural areas in the country. Also, as part of a national program to mitigate CO_2 emissions in a cost-effective manner, TVA is addressing the use of biofuels as a substitute for fossil fuels for large combustion sources such as power plants. Through this program, TVA is exploring the environmental impacts of growing bioenergy crops on the scale necessary to have a significant impact on these emissions. For FY97, funding will be used for conducting laboratory studies of chemical mechanisms, for development and application of photochemical model development and application, and for studies of ozone impacts on high-elevation forest ecosystems.

Biotechnology Remediation **5,440**

Through this program, TVA is developing innovative ways to clean industrial sites across the country contaminated with a wide variety of hazardous materials. The current cost of cleanups is forcing American businesses to abandon these sites. For petroleum-based contaminants, researchers at the ERC are developing cost-effective bioremediation technologies that use contaminant-degrading microorganisms essentially to "eat" the petroleum contaminants and transform them into benign products. In addition, TVA is using man-made (constructed) wetlands to cleanse domestic and industrial wastewater. This technology can be used on groundwater contaminated by explosives production and by manufacturers whose industrial wastes are laden with ammonia, organics, or heavy metals. Other biotechnology processes being developed include biofiltration systems to assist with industrial-waste management and contaminated-site remediation and technologies for turning wastes into fuels. For FY97, funding will be used 1) to conduct active bioremedial cleanup at two or more utility, manufacturing or defense industry sites; 2) to complete two microcosm experiments for wetlands research and seek partners for transferring this technology; 3) to have the biofiltration methodologies and technologies adopted by industry and government and achieve at least two partnership agreements; 4) to develop one new environmental sensor to trace chemical emissions; and 5) to provide strategies for transferring to the marketplace research for turning wastes into fuels.

Land and Watershed Protection **3,740**

This program provides for the research, testing, and transfer of new and improved methodologies that enable the watershed to be managed for multiple uses while protecting and sustaining the environment. Research from this project will be used to improve management of national forest lands and shorelines to support application of environmental policies. For FY97, funding will be used to test biological controls for aquatic-plant pests as an alternative to pesticides in reservoir operations, complete hydrilla-fly testing at Guntersville Lake, incorporate hydrilla weed-control strategies into annual operations, evaluate shoreline stabilization and riparian-zone techniques, develop methods for water utilization, and develop and transfer pollution prevention strategies for agriculture and industry.

Environmental Compliance **6,100**

TVA is subject to numerous federal and state laws and regulations concerning environmental compliance, (including the Resource Conservation Recovery Act Corrective Action Program) which address the cleanup of contaminated sites at the ERC. The site clean-up includes a web of abandoned buildings and production facilities that handled and deposited hazardous and toxic chemicals for more than 50 years. Cleanup is projected to be completed by the year 2001. For FY97, TVA will achieve 70 percent cleanup of the reservation and will clean up and demolish an additional eight to 10 buildings. Funding ensures that all regulatory requirements are met. This program also includes assessment and oversight of environmental-compliance programs at the ERC dealing with potable water, hazardous and solid waste, environmental review, water and wastewater, toxic substances, clean air and asbestos.

Economic Development

Through its economic-development programs, TVA develops initiatives that support national industrial competitiveness and help to develop high-quality jobs in areas with per-capita income significantly below the national average. Also, TVA deploys an information infrastructure that supports industrial development and the generation of commerce. The program focuses on three strategic initiatives: business development, community development, and technical services.

TVA FY 1997 Budget

Economic Development–Program Financing Schedule

($ in thousands)

	1996 ESTIMATED	1997 FORECAST
Appropriations		
Operations:		
Business Development	8,178	11,200
Community Development	6,221	3,200
Technical Services	1,601	1,600
Total Operations	16,000	16,000
Total Appropriations	**16,000**	**16,000**
Total Financing	16,000	16,000

Economic Development

Programs for FY97 $000s

Business Development **11,200**

This program helps build new businesses and industry and assists in the expansion and market development of existing industry to generate more commerce in the region. TVA is a national leader in the research, development, and implementation of a regional small-business incubator network. This network serves as a model for growing healthy new business enterprises, particularly in economically distressed areas.

TVA has invested approximately $5 million in business-incubator projects across the Tennessee Valley. This investment has resulted in about 300 new companies and 3,000 new jobs for the region. Of the $5 million, TVA has invested more than $4.4 million in eight incubators since 1986. Those eight incubators have produced 124 new companies with 865 jobs. Thirty-eight of the 124 companies (31 percent) are minority-owned or woman-owned.

This program builds upon existing incubation centers and introduces interactive telecommunication linkages across the Valley. For FY97, funding will be used to establish two new business incubators and to support four economic development centers. This program will help 85 percent of the new businesses succeed, create or retrain people for 2,100 new jobs, and help start up 20 new businesses.

Community Development **3,200**

TVA's community development strategic initiative helps build the capacity for communities to develop and manage their economic growth. Through this program, TVA provides communities with the technical expertise to plan properly for economic growth and to invest in competitive community infrastructure projects based on business plans that contain measurable benefits. For FY97, TVA will use its funding to initiate new strategic planning projects in at least seven additional communities. Also, TVA will invest in at least one major community project with national model implications.

Technical Services **1,600**

Through this program TVA generates and provides access to information that is necessary to support economic development programs in the Valley. These services include economic research and forecasting, architectural and engineering feasibility studies, deployment of information-systems infrastructure, project planning and management, and environmental compliance. For FY97, TVA will use funding to produce business opportunities analysis, project-impact analysis, market analysis and other products. In addition, funding will be used to continue providing economic forecasting. This program also funds engineering support, which in FY97 will provide land evaluations for development, design infrastructure and buildings, and will prepare preliminary plans, cost estimates and product feasibility studies.

Power Program

During FY95, TVA strengthened its leadership in the electric utility industry as it continued to prepare for the coming era of utility deregulation. TVA held its power rates stable for the ninth year in a row while reducing costs, improving efficiencies, and continuing to meet increasing demands for electricity. In an annual report on America's top 100 utilities, *Electric Light & Power* magazine ranked TVA as the largest power producer in the United States and the 12th lowest in production costs.

TVA reached several significant accomplishments during the past year including: Browns Ferry Unit 2 attaining the second-highest capacity factor in the United States and third-best in the world; returning Browns Ferry Unit 3 to operation; and receiving a full-power operating license from the Nuclear Regulatory Commission for Watts Bar Nuclear Plant Unit 1. When Watts Bar reaches 100 percent power, it will produce enough electricity to supply 250,000 Tennessee Valley homes.

Operating Revenues

The TVA Act requires that rates be sufficient to produce gross revenues adequate to cover the cost of operation, maintenance, and administration of the system, payments to states and counties in lieu of taxes, specified fixed charges associated with debt financing, U.S. Treasury payments, and a margin, determined by the TVA Board, for investment in system assets, reduction of liabilities, and other purposes connected with TVA's power program.

Operating Expenses

TVA is continuing its efforts to manage operating costs. Operating expenses for FY95 were $3.4 billion, virtually the same as the prior year, even though power generation increased more than four percent. Fuel and purchased power expenses represent the largest category of TVA operating expenses at $1.4 billion in FY95, followed by operating and maintenance expense of $1.1 billion.

The following is the FY95 and estimated FY96 TVA Power Program income statement.

Income Statement

($ in millions)

	1995 ACTUAL	1996 ESTIMATE
Operating Revenue	5,375	5,554
Operating Expenses:		
Fuel and Purchased Power, Net	1,443	1,278
Operating and Maintenance	1,050	1,176
Depreciation and Amortization	703	917
Payments in Lieu of Taxes	252	254
Total Operating Expenses	3,448	3,625
Operating Income	**1,927**	**1,929**
Other Income and Expense	**(91)**	**4**
Interest Charges:		
Interest on Debt	2,024	2,067
Allowance for Funds Used During Construction	(198)	(167)
Net Interest Charges	1,826	1,900
Net Income	**10**	**33**

Capital Investment

TVA has set a goal for no new borrowings by the end of FY97. In order to accomplish this, we have greatly reduced our capital expenditures. Power capital investment was $1.8 billion in FY95 as compared to approximately $2 billion in FY94. Additionally, capital expenditures are projected to be further reduced in FY96 to approximately $1.1 billion.

($ in millions)

	1995 ACTUAL	**1996 ESTIMATE**
Nuclear Additions and Improvements	829	333
Fossil & Hydro Additions and Improvements	546	393
Transmission System Facilities	140	164
General Facilities	259	246
Total Capital Investment	**1,774**	**1,136**

Power Program Borrowing

Section 15d of the TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness to assist in financing its power program. The maximum amount of such obligations authorized to be outstanding at any one time is $30 billion. At the end of FY95, this indebtedness was $27.1 billion, expected to increase to $27.7 billion by the end of FY96.

The $1.2 billion in additional borrowings for FY95 was primarily for increased effort required for commercial operation of Watts Bar Unit 1, additional work necessary for the restart of Browns Ferry Unit 3, fossil system modifications required to improve availability, combustion turbine renovations, and transmission system improvements. The reduced level of borrowings in FY96 of $.6 billion reflects the commercial operations of the Watts Bar and Browns Ferry units.

The following presents the changes in TVA's Power Program indebtedness during FY95.

Statement of Changes in Indebtedness

($ in millions)

		1995 ACTUAL	1996 ESTIMATE
Borrowings at Beginning of Fiscal Year			
Long-Term Debt:			
Payable to Public*		19,862	21,059
Payable to Federal Financing Bank*		3,400	3,200
Short-Term Debt:			
Payable to U.S. Treasury		150	150
Payable to public		2,466	2,692
Total		**25,878**	**27,101**
Changes in borrowing during fiscal year			
Long-Term Debt:			
Payable to Public	Issues	3,500	1,750
	Redemptions	(2,303)	(1,306)
Payable to Federal Financing Bank			
	Redemptions	(200)	0
Total		997	444
Short-Term Debt:			
Payable to Public—Net		226	201
Total Change in Debt		**1,223**	**645**

*Defeased debt is excluded from the total.

Statement of Changes in Indebtedness (continued)

($ in millions)

	1995 ACTUAL	1996 ESTIMATE
Borrowings Outstanding at End of Fiscal Year		
Long-Term Debt:		
Payable to public*	21,059	21,503
Payable to Federal Financing Bank*	3,200	3,200
Short-Term Debt:		
Payable to U.S. Treasury	150	150
Payable to Public	2,692	2,893
Total	**27,101**	**27,746**

*Defeased debt is excluded from the total.

TVA Annual Metric Report

The following report is prepared under the Guidelines for Submission of Annual Metric Reports required by P.L. 100-418, Section 5164, Metric Usage. TVA's implementation of the metric system of measurement is summarized through December 31, 1995, for five categories: conversion status and sensitivity; federal, state, and local consultations; private industry initiatives; public-awareness initiatives; and employee training. Each of these areas is discussed in detail in this report.

Conversion Status and Sensitivity

TVA Overall – TVA continues to operate under the "TVA Metric Commitment." It is a policy, implemented in 1994, that commits TVA organizations to "an orderly and reasonable transition to the metric system, where such transition is reasonable and cost-effective."

TVA's Metrication Working Council assists all TVA organizations in completion of metric-conversion activities. Major FY96 plans include:

- Implementation of metric courses in TVA University.
- Expansion of TVA's Metric Supplier's List.
- Community Involvement – National Engineers Week, etc.
- Update of metric procedures in TVA design organizations.
- Update of TVA engineering standards in metric where appropriate.

Customer Group – Continue to support an orderly transition to the metric system.

- Emphasize and specify metric or dual units in material procurement.
- Use metric units in all new automation activities.
- Encourage supplier's transition to metric.

Transmission/Power Supply – Existing facilities, equipment, and systems that have been designed and constructed in non-metric are not being converted to metric.

- Evaluate cost effectiveness of metric design on new projects.
- Develop new transmission engineering standards in dual units.

Facilities Services – Actively promote activities across TVA to meet the conversion to the metric system on an ongoing basis.

- Design all new construction projects utilizing hard metric designs and products where cost-effective.

- Utilize all business plan indicators in metric units.

- Distribute metric training materials to employees.

- Emphasize the use of metric units in correspondence, reports, instruction manuals, and brochures.

Purchasing – Encourage requisitioners and suppliers to use metric specifications.

- Enhance and expand the TVA metric source list.

- Continue to specify metric units in standard item descriptions.

- Continue to seek metric-conversion opportunities in long-term purchasing contracts.

Fossil and Hydro Power – Existing facilities, equipment, and systems that have been designed and constructed in nonmetric are not being converted to metric.

- A procedure has been finalized that establishes a criteria for deciding when new projects will be in metric.

- There are currently no metric projects planned for 1996. A reduction in overall TVA capital spending has eliminated some facilities that would have been candidates for metric design and construction.

Nuclear – Ongoing activities involving design changes, construction, modifications, and maintenance to existing nuclear plants that require interface with pre-existing drawings and design calculations will continue in non-metric dimensions. Existing designs will not be converted because of safety considerations. Certain replacement parts and materials for nuclear plants must meet stringent nuclear regulatory requirements related to design basis and supplier quality-assurance programs. This precludes cost-effective conversion to metric.

Resource Group – Some activities, primarily in the scientific activity fields, are using metric units, and other activities will be converted to metric in accordance with the TVA Metric Commitment Policy.

- Complete a shallow-draft twin-diesel shiftboat in metric to perform navigation services work on the Tennessee River System.

- Implement metric measurements in Automated Land Information System digital reservoir landrights, natural resources, and cultural resources databases.

- Utilize all business plan indicators in metric units.

- Emphasize the use of metric units in correspondence, reports, instruction manuals, and brochures.

- Distribute metric training materials to employees.

Economic Development – The activities to convert to metric for this staff closely interact with other federal agencies and with state and local governments.

- The topographical mapping we utilize has not been converted to metric.

- Products provided to international customers are supplied in dual units.

- Products supplied to national customers are supplied in the format requested by the customer.

Federal, State, and Local Consultations

Customer Group – Incorporate progress of other federal agencies and utilities into the metric transition program.

Transmission/Power Supply – Activities require close interaction with many other agencies such as FERC, DOE, and EPA and local governments involved in transmission line projects.

Resource Group and Economic Development Group – Activities in many cases closely interact with other federal agencies, such as the U.S. Geological Survey, and with state and local governmental entities.

Private Industry Initiatives

Purchasing – TVA has informed key suppliers about its Metric Policy at annual supplier recognition events and has developed supplier lists for those with metric capabilities.

Resource Group – A TVA Quality Supplier initiative exists to promote metrics among vendors and contractors.

Public Awareness Initiatives

Facilities Services – Displays promoting the use and benefits of metrics are being placed in TVA facilities across the service territory. A special initiative for 1996 is metric displays at TVA facilities during National Engineers Week.

Resource Group – Metric units will be utilized in all recreational facilities across the valley.

Nuclear – Displays promoting the use and benefits of metrics have been placed in TVA nuclear plant visitor centers.

Employee Training

All TVA Organizations – A metric survey and associated training initiative has been developed to promote metric awareness. It is available to all employees through TVA University.

Facilities Services – Employees, contractors and suppliers have been provided metric-awareness training.

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